

### A Postretirement Welfare Benefit GASB 45 Actuarial Valuation As of July 1, 2007

For:

## Town of Amherst, Ma. and Amherst Elementary Schools

Prepared by: The USI Consulting Group

October 27, 2008



October 27, 2008

Town of Amherst 4 Boltwood Ave. Amherst, MA 01002

### RE: July 1, 2007 Actuarial Valuation of Postretirement Welfare Benefits

We enclose the report covering the actuarial valuation of the postretirement medical insurance plan for the employees of the Town of Amherst, Ma. and Amherst Elementary Schools as of July 1, 2007. The numbers presented in this report reflect the adoption, by the Town of Amherst, Ma. and Amherst Elementary Schools, of the Statement of Governmental Accounting Standard No. 45 (GASB 45).

The financial results of the actuarial valuation are summarized in the report. The Executive Summary highlights the results of the valuation, including the calculation of the Annual OPEB Cost (expense) for the fiscal year beginning July 1, 2007, \$5,719,050 which is based on a 30 year amortization of the UAAL as of July 1, 2007. The 30 year calculation represents the *maximum* amortization period allowed under the parameters of GASB 45 and produces the *minimum* Annual OPEB Cost under GASB 45.

Additional information summarizing census information, actuarial assumptions, and the methodology for developing them, as well as a glossary of selected terms used in this study, are also included in the report.

All calculations are made in accordance with our understanding of the provisions of the Statement of Governmental Accounting Standards Board Number 45 (GASB 45). We believe this report provides all of the information your auditor requires. We would appreciate a copy of the footnote to your financial statement related to the postretirement benefits.

Respectfully submitted,

**USI Consulting Group** 

Robert W. Webb, FSA, EA, MAAA

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Vice President and Actuary



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### Section I

### **Executive Summary**

The section presents the results of the July 1, 2007 valuation. The first section provides a brief summary of the valuation results. The Executive Summary Detail provides a more detailed development of the expenses and liabilities. Items I through IV show the development of the Annual Required Contribution (ARC). Items V through VIII show the calculation of the Annual OPEB Cost. Item X provides a brief summary of the key assumptions used in developing the plan's costs and liabilities.

### **EXECUTIVE SUMMARY**

### Introduction

This report details the development of the Annual OPEB Cost for the Fiscal Year ending June 30, 2008. Estimated June 30, 2008 disclosures are included in Section III

The liabilities developed in this report are only valid for purposes of meeting employer accounting requirements as required by Statement of Governmental Accounting Standards Number 45 (GASB 45). Liabilities developed for other purposes could be significantly different than those shown in this report.

### **Summary of Results**

The Actuarial Accrued Liability and Normal Cost are calculated as of the valuation date. The Annual OPEB Cost and Expected Benefit Payments are for the year beginning on the valuation date. Additional detail is developed in the exhibits included in this actuarial valuation report.

Valuation Date	July 1, 2007
Present Value of Future Benefit Payments	\$101,823,473
Unfunded Actuarial Accrued Liability (UAAL)	\$68,990,212
Annual Required Contribution (30 year amortization)	\$5,719,050
Expected Benefit Payments	\$1,938,267
Net OPEB Obligation (NOO)	\$0

### **Economic Assumptions**

The employer, with the approval of the auditor, is responsible for selecting the economic assumptions as of the disclosure date. The following table details the selected economic assumptions for the current fiscal year:

Assumption Selection Date	<u>July 1, 2007</u>
Funding Interest Rate*	4.25%
2007 Trend Rates (Medical/Rx)	10.00%/11.00%
Ultimate Medical Cost Trend Rate	5.00%/6.00%
Year Ultimate Medical Trend Rate Reached	2012
Annual Salary Increases	4.00%
Projected annual increase in payroll	2.50%

<sup>\*</sup> Reflects current funding policy (assumes no funding).

### Changes included in current valuation

A fresh start approach was used.

### **Accounting for Postretirement Benefits**

This report provides the information needed to prepare the footnote in your financial statements related to your postretirement benefit plans. The unfunded actuarial accrued liability and the ARC are developed in the Executive Summary Detail included in this section. For this Fiscal Year / Valuation Report, Section III presents the disclosure information based on estimated contributions made.

### **Actuarial Certification**

The financial results of the actuarial valuation are summarized in this report. The valuation has been prepared as of July 1, 2007. The detail charts included in this Executive Summary highlight the results of the valuation. Additional information summarizing the census, actuarial assumptions, plan provisions, and a glossary of selected terms used in this study are also included in this report.

The valuation is based on the July 1, 2007 census data and plan information as provided by the employer. We have reviewed both the census and financial data for reasonableness, but have not completed an independent audit of the information.

All costs, liabilities, and other factors under the plan were determined in accordance with generally accepted actuarial principles and procedures. The calculations are consistent and undertaken with our understanding of Statement of Governmental Accounting Standards Number 45 (GAS 45). In our opinion, the actuarial assumptions are reasonable, taking in account the experience of the plan and reasonable expectations and, individually represent our best estimate of the anticipated experience under the plan.

I have no relationship with the employer or the plan that would objectively impair, or appear to impair, my ability to perform the work detailed in this report.

I certify that I am a member of the American Academy of Actuaries and meet its Qualification Standards to provide an actuarial opinion in accordance with GASB 45.

Robert W. Webb, FSA, EA, MAAA

Vice President and Actuary

Adeniyi Olaiya, ASA, MAAA

Actuary

### GASB 45 LIABILITIES, ANNUAL REQUIRED CONTRIBUTION AND ANNUAL OPEB COST July 1, 2007 COMBINED RESULTS

(Actuarial Cost Method - Entry Age Normal)

		July 1, 2007
l.	Present value of Future benefits	
~*	A. Retirees/Disableds	\$34,556,977
	B. Active Employees	\$67,266,496
	C. Total	\$101,823,473
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II.	Unfunded Actuarial Accrued Liability (UAAL)	
	A. Retirees	\$34,556,977
	B. Active Employees	\$34,433,235
	C. Total	\$68,990,212
III.	Annual Required Contribution (ARC)	
	A. Normal Cost	\$2,617,231
	B. Supplemental Cost	
	(i) Funding liability	\$68,990,212
	(ii) Actuarial Assets	\$0
	(iii) Unfunded Actuarial Accrued Liability [ (i) - (ii)]	\$68,990,212
	(iv) Amortization Period	30.00
	(v) Supplemental Cost	\$2,908,177
	C. Beginning Of Year Contribution [A. + B. (v)]	\$5,525,408
	D. Compound Interest to Year End	\$193,642
	E. Preliminary ARC	\$5,719,050
	[C. + D.]	<b>,</b> , , ,
IV.	Annual Required Contribution (ARC) [II. E.]	\$5,719,050
ν.	Net OPEB Obligation	\$0
VI.	Interest on net OPEB Obligation	\$0
VII.	Adjustment to ARC	(\$0)
ΊΠ.	Annual OPEB Cost (Expense)	\$5,719,050
	[III. + IV V.]	
IX.	Expected Benefit Payments	\$1,938,267
Х.	Key Actuarial Assumptions	4.0.504
	A. Funding interest Rate	4.25%
	B. 2007 Medical / Drug Trend Rate	10.0%/11.0%
	C. Ultimate Medical/DrugTrend Rate	5.0%/6.0%
	D. Year ultimate Medical Trend rate reached	2012
	E. Annual Payroll Increase	2.50%

### GASB 45 LIABILITIES, ANNUAL REQUIRED CONTRIBUTION AND ANNUAL OPEB COST PLAN RESULTS BY AGE

	(Actuarial Cost Method - F	Entry Age Normal) <u>Under 65</u>	<u>Over 65</u>	<u>Total</u>
I.	Present value of Future benefits			
	A. Retirees/Disableds	\$6,756,892	\$27,800,086	\$34,556,978
	B. Active Employees	<u>\$13,253,964</u>	<u>\$54,012,531</u>	\$67,266,49 <u>5</u>
	C. Total	\$20,010,856	\$81,812,617	\$101,823,473
II.	Unfunded Actuarial Accrued Liability (UAAL)			
	A. Retirees	\$6,756,892	\$27,800,086	\$34,556,978
	B. Active Employees	\$6,388,857	\$28,044,377	<u>\$34,433,234</u>
	C. Total	\$13,145,749	\$55,844,463	\$68,990,212
III.	Annual Required Contribution (ARC)			
	A. Normal Cost	\$519,179	\$2,098,050	\$2,617,229
	B. Supplemental Cost			
	(i) Funding liability	\$13,145,749	\$55,844,463	\$68,990,212
	(ii) Actuarial Assets	\$0	\$0	\$0
	(iii) Unfunded Actuarial Accrued Liability [ (i) - (ii)]	\$13,145,749	\$55,844,463 30.00	\$68,990,212 30.00
	<ul><li>(iv) Amortization Period</li><li>(v) Supplemental Cost</li></ul>	30.00 \$554,139	\$2,354,038	\$2,908,177
	C. Beginning Of Year Contribution	9551,157	\$2,551,050	\$2,700,177
	[A. + B. (v)]	\$1,073,320	\$4,452,088	\$5,525,408
	D. Compound Interest to Year End	\$23,775	\$169,867	\$193,642
	E. Preliminary ARC [C. + D.]	\$1,097,095	\$4,621,955	\$5,719,050
IV.	Annual Required Contribution (ARC) [II. E.]	\$1,097,095	\$4,621,955	\$5,719,050
V.	Net OPEB Obligation	\$0	\$0	\$0
VI.	Interest on net OPEB Obligation	\$0	\$0	\$0
VII.	Adjustment to ARC	(\$0)	(\$0)	(\$0)
VIII.	Annual OPEB Cost (Expense) [III. + IV V.]	\$1,097,095	\$4,621,955	\$5,719,050
IX.	Expected Benefit Payments	\$1,027,845	\$910,422	\$1,938,267

### GASB 45 LIABILITIES, ANNUAL REQUIRED CONTRIBUTION AND ANNUAL OPEB COST PLAN RESULTS BY BENEFIT TYPE

(Actuarial Cast	Method - Entry	Age Normal)
ACHIADIAE CON	MEEROU - CHILLY	Ageronian

	(Actuariai Cost Method - Entry Age Normai)					
		<u>Medical</u>	Medicare Part B	<u>Life</u>	<u>Total</u>	
I.	Present value of Future benefits					
	A. Retirces/Disableds	\$31,761,900	\$2,596,479	\$198,598	\$34,556,977	
	B. Active Employees	\$60,780,756	\$6,323.779	\$161,96 <u>1</u>	\$67,266,496	
	C. Total	\$92,542,656	\$8,920,258	\$360,559	\$101,823,473	
H.	Unfunded Actuarial Accrued Liability (UAAL)					
	A. Retirees	\$31,761,900	\$2,596,479	\$198,598	\$34,556,977	
	B. Active Employees	\$31.043.369	\$3,293,657	<u>\$96,209</u>	<u>\$34,433,235</u>	
	C. Total	\$62,805,269	\$5,890,136	\$294,807	\$68,990,212	
III.	Annual Required Contribution (ARC)					
	A. Normal Cost	\$2,373,062	\$237,869	\$6,300	\$2,617,231	
	B. Supplemental Cost					
	(i) Funding liability	\$62,805,269	\$5,890,136	\$294,807	\$68,990,212	
	(ii) Actuarial Assets	\$0	\$0	\$0	\$0	
	(iii) Unfunded Actuarial Accrued Liability [ (i) - (ii)]	\$62,805,269	\$5,890,136	\$294,807	\$68,990,212	
	(iv) Amortization Period	30.00	30.00	30.00	30.00	
	(v) Supplemental Cost	\$2,647,460	\$248,290	\$12,427	\$2,908,177	
	C. Beginning Of Year Contribution		0.106.150	410.505	Φ	
	[A. + B. (v)]	\$5,020,522	\$486,159	\$18,727	\$5,525,408	
	D. Compound Interest to Year End	\$173,713	\$19,341	\$588 \$10.215	\$193,642 \$5,719,050	
	E. Preliminary ARC [C. + D.]	\$5,194,235	\$505,500	\$19,315	\$3,719,030	
	[C. + D.]					
IV.	Annual Required Contribution (ARC) [II. E.]	\$5,194,235	\$505,500	\$19,315	\$5,719,050	
V.	Net OPEB Obligation	\$0	\$0	\$0	\$0	
VI.	Interest on net OPEB Obligation	\$0	\$0	\$0	\$0	
VII.	Adjustment to ARC	(\$0)	(\$0)	(\$0)	(\$0)	
VIII.	Annual OPEB Cost (Expense) [III. + IV V.]	\$5,194,235	\$505,500	\$19,315	\$5,719,050	
IX.	Expected Benefit Payments	\$1,866,339	\$62,148	\$9,780	\$1,938,267	

### $\frac{\text{GASB 45 LIABILITIES, ANNUAL REQUIRED CONTRIBUTION AND ANNUAL OPEB COST}{\text{PLAN RESULTS BY ENTITY}}$

(Actuarial Cost Method - Entry Age Normal)

		Amherst Elementary Schools	Town of Amherst	<u>Total</u>
I.	Present value of Future benefits			-
	A. Retirees/Disableds	\$15,716,036	\$18,840,941	\$34,556,977
	B. Active Employees	\$28,030,314	\$39,236,182	\$67,266,496
	C. Total	\$43,746,350	\$58,077,123	\$101,823,473
II.	Unfunded Actuarial Accrued Liability (UAAL)			
	A. Retirees	\$15,716,036	\$18,840,941	\$34,556,977
	B. Active Employees	\$14,115,707	\$20,317,528	\$34,433,235
	C. Total	\$29,831,743	\$39,158,469	\$68,990,212
III.	Annual Required Contribution (ARC)			
	A. Normal Cost	\$1,202,186	\$1,415,045	\$2,617,231
	B. Supplemental Cost			
	(i) Funding liability	\$29,831,743	\$39,158,469	\$68,990,212
	(ii) Actuarial Assets	\$0	\$0	\$0
	(iii) Unfunded Actuarial Accrued Liability [ (i) - (ii)]	\$29,831,743	\$39,158,469	\$68,990,212
	(iv) Amortization Period	30.00	30.00	
	(v) Supplemental Cost	\$1,257,511	\$1,650,666	\$2,908,177
	C. Beginning Of Year Contribution	62.450.602	#2 0 <i>65</i> 711	05.505.400
	[A. + B. (v)] D. Compound Interest to Year End	\$2,459,697	\$3,065,711	\$5,525,408
	E. Preliminary ARC	<u>\$84,957</u> \$2,544,654	\$108,685 \$3,174,396	\$193,642 \$5,719,050
	[C. + D.]	.92,344,034	\$3,174,390	\$3,719,030
IV.	Annual Required Contribution (ARC) [II. E.]	\$2,544,654	\$3,174,396	\$5,719,050
V.	Net OPEB Obligation	\$0	\$0	\$0
VI.	Interest on net OPEB Obligation	\$0	\$0	\$0
VII.	Adjustment to ARC	(\$0)	(\$0)	(\$0)
VIII.	Annual OPEB Cost (Expense) [III. + IV V.]	\$2,544,654	\$3,174,396	\$5,719,050
IX.	Expected Benefit Payments	\$921,433	\$1,016,834	\$1,938,267

### Section II Census Information

This section details statistics related to the participants in the postretirement benefit plan.

### CENSUS INFORMATION – A. EMPLOYEE COUNTS

-		Actives	<u>Retirees</u>	<u>Total</u>
Amherst	Male	46	27	73
<b>Elementary Schools</b>	Female	175	93	<u>268</u>
	Total	221	120	341
Town of	Male	158	63	221
Amherst	Female	78	34	112
	Total	236	97	333

### **COUNTS BY AGE AND ELIGIBILITY STATUS**

### **ACTIVE EMPLOYEES:**

	Currently	Not Currently	
	Eligible	Eligible	
Age	to Retire	to Retire	Total
29 and under	N/A	48	48
30 - 34	N/A	50	50
35 - 39	N/A	54	54
40 - 44	3	46	49
45 - 49	11	63	74
50 - 54	27	60	87
55 - 59	48	22	70
60 - 64	18	4	22
65 and over	2	1	3
Total	109	348	457

### **CURRENT RETIREES:**

Age	Retirees*	Spouses	<u>Total</u>
54 and under	8	10	18
55 - 59	28	21	49
60 - 64	52	23	75
65 - 69	31	14	45
70 - 74	33	9	42
75 - 79	28	11	39
80 and over	37	8	45
Tota1	217	96	313

<sup>\*</sup> Retirees includes surviving spouses

### CENSUS INFORMATION - B.

### AVERAGE AGE AND SERVICE

	As of July 1, 2007
ACTIVE EMPLOYEES:	
A. Average Age at Hire	
Males	31.4
Females	35.6
Total	33.8
B. Average Service	
Males	11.5
Females	11.4
Total	11.4
C. Average Current Age	
Males	42.9
Females	47.0
Total	45.2
CURRENT RETIREES	
D. Average Current Age	
Males	66.9
Females	70.9
Total	69.3

SECTION III.

### **Section III**

### Financial Statement Disclosure

This section provides the required information and notes to the Financial Statements For the fiscal year ending June 30, 2008.

SECTION III.

### FINANCIAL STATEMENT DISCLOSURE

The GASB standard on accounting for postretirement benefits other than pensions requires the following disclosures in the financial statements with regard to the retiree benefit liability:

### A BRIEF DESCRIPTION OF THE RETIREE MEDICAL AND LIFE INSURANCE PLAN: 1.)

Type of Coverage:

Medical Insurance:

Town: Self insured HMO and PPO through BlueCross/BlueShield and

Harvard Pilgrim.

GIC: Fully insured Fallon HMO, Health New England HMO and

Commonwealth Indemnity Plan, through the Commonwealth of

Massachusetts Group Insurance Commission

Life Insurance:

Town: \$2,000 GIC: \$2,000

**Medicare Reimbursement:** 

Town: Yes GIC: No

Eligibility:

Town: Age 55 with at least 10 years of service or 20 years of service.

GIC: Age 55 with at least 10 years of service or 20 years of service.

**Cost Sharing:** 

Medical:

Town: The retiree contributes 25% to the PPO and Medicare plans. The retiree pays approximately 18% to the Network Blue New England HMO and

approximately 19% to the Harvard Pilgrim HMO 90.

For further breakdown of the Town's cost sharing refer to Section VI, Plan

GIC: The retiree pays 10% of the medical insurance premium.

Life Insurance:

**Town:** The retiree pays \$2.16 annually GIC: The retiree pays \$10.80 annually

Medicare Part B:

**Town:** The town pays 75% of the premium for the retiree and 50% for the

surviving spouse.

The retiree pays the full premium of the Medicare Part B premium GIC:

Spouse Coverage:

Town: Yes

GIC: Yes

**Surviving Spouse Coverage:** 

Town: Yes

GIC:

No

SECTION III.

### FINANCIAL STATEMENT DISCLOSURE (cont.)

### 2.) GASB 45 DISCLOSURE REQUIREMENTS – ESTIMATED

ANNUAL REPORT DISCLOSURE FOR THE FISCAL YEAR ENDED June 30, 2008 estimated Town of Amherst and Amherst Elementary Schools, MA - Combined - GASB 45

A.	Annual OPEB Cost and Net OPEB Obligation  1. Annual Required Contribution (ARC)  2. Interest on net OPEB Obligation  3. Adjustment to ARC  4. Annual OPEB Cost (Expense)	07/01/07 - 06/30/08 \$5,719,049 \$0 \$0 \$5,719,049	07/01/08 - 06/30/09 \$6,024,919 \$160,683 (\$163,594) \$6,022,008
	<ol> <li>Contribution made (assumed end of year) *</li> <li>Increase in net OPEB Obligation</li> <li>Net OPEB Obligation - beginning of year</li> <li>Net OPEB Obligation - end of year</li> </ol>	\$1,938,267 \$3,780,782 \$0 \$3,780,782	\$2,139,934 \$3,882,074 \$3,780,782 \$7,662,856

<sup>\*</sup> Contribution made was assumed to equal Expected Benefit Payments

The Town of Amherst and the Amherst Elementary School's annual OPEB Cost, the percentage of annual OPEB cost contributed to the plan, and the net OPEB obligation for fiscal year 2007/08 are as follows:

Fiscal		Percentage of	Net
Year	Annual	Annual OPEB	OPEB
<b>Ending</b>	OPEB Cost	Cost Contributed	<b>Obligation</b>
06/30/2008	\$5,719,049	33.9%	\$3,780,782
06/30/2009	\$6,022,008	35.5%	\$7,662,856

### B. Funded Status and Funding Progress

		Actuarial				UAAL as a Percentage of
	Actuarial	Accrued	Unfunded			Covered
Actuarial	Value of	Liability	AAL	Funded	Covered	Payroll
Valuation	Assets	(AAL)	(UAAL)	Ratio	Payroll	(AAL)
<u>Date</u>	<u>(a)</u>	<u>(b)</u>	(b-a)	<u>(a/b)</u>	(c)	((b-a)/c)
07/01/2007	\$0	\$68,990,212	\$68,990,212	0.0%	N/A	N/A

### C. Methods and Assumptions

-	Funding Interest Rate	4.25%
-	2007 Medical Trend Rate	10.00%
-	Ultimate Medical Trend Rate	5.00%
-	Year Ultimate Medical Trend Rate Reached	2012
-	Actuarial Cost Method	Entry Age Normal
-	The remaining amortization period at June 30, 2008	29 years

SECTION IV.

### **Section IV**

### **Actuarial Assumptions And Methodology**

The following pages detail the assumptions used in the calculations.

### **ACTUARIAL ASSUMPTIONS AND METHODOLOGY**

1. Funding Interest Rate: An interest rate of 4.25% was used. A 7.00% interest rate was used in

Appendix-III to show the potential impact of advance funding the

plan in accordance with GASB 45.

2. Mortality: The mortality rates are from the RP-2000 Combined Mortality Table

projected to 2007 with projection scale AA.

3. <u>Disability Rates:</u>

None assumed

4. Termination Rates:

	Years of Service		
<u>Age</u>	0	5	10+
20	.180%	.000%	.000%
30	.150%	.090%	.041%
40	.125%	.070%	.031%
50	.100%	.048%	.021%

5. <u>Health Care Trend Rates:</u> It was assumed that health care costs would increase in accordance with the trend rates in the following table:

	Medical	Drug
<u>Year</u>	<u>Rates</u>	<u>Rates</u>
2007	10.0%	11.0%
2008	9.0%	10.0%
2009	8.0%	9.0%
2010	7.0%	8.0%
2011	6.0%	7.0%
2012+	5.0%	6.0%

6. Retirement Rates:

<u>Age</u>	<u>Male</u>	<u>Female</u>
45	0.0%	0.0%
50	1.5%	3.0%
55	4.0%	5.0%
60	8.0%	8.0%
65	25.0%	25.0%
70	100%	100%

SECTION IV.

### ACTUARIAL ASSUMPTIONS AND METHODOLOGY (cont.)

### 7. Participation Rate:

It was assumed that 100% of the current active town employees and 90% of the current active school employees covered under the town plan on the day before retirement would enroll in the retiree medical plan upon retirement.

It was assumed that 65% of the current active school employees covered under the town plan on the day before retirement would enroll in a GIC plan upon retirement.

### 8. Percent Married:

It was assumed that 55% of the male and 30% of the female employees who elect retiree health care coverage for themselves would also elect coverage for their spouse upon retirement. It was assumed that spouses would be the same age as the retiree. For current retirees, actual census information was used.

### 9. Actuarial Value of Assets: N/A

### 10. Per Capita Claims Cost:

Conventional insured equivalent premiums were age-graded on the current participants in the Town's Medical plan. Further details of the annual per capita claims cost is featured in Section V of the report.

The premiums paid to the GIC plans are independent of the Town's experience and demographic profile, and are expected to change consistent with a community rated plan. Thus we have applied the premiums with no additional adjustments other than future trend increases.

### 11. Participant Salary

**Increases:** 

4.00% annually

### 12. Payroll Growth Rate:

2.50% annually

SECTION IV.

### ACTUARIAL ASSUMPTIONS AND METHODOLOGY (cont.)

### **ACTUARIAL COST METHOD**

**JULY 1, 2007 GASB 45 VALUATION** 

An Actuarial Cost Method develops an orderly allocation of the actuarial present value of benefits payments over the working lifetime of the participants in the plan. The actuarial present value of benefits allocated to a particular fiscal year is called the Normal Cost. The actuarial present value of benefits allocated to all periods prior to a valuation date is called the Actuarial Accrued Liability. The Unfunded Actuarial Accrued Liability is amortized over future years in accordance with the employer's established accounting policy.

Six Actuarial Cost Methods are acceptable for use under GASB 45: entry age, frozen entry age, attained age, frozen attained age, projected unit credit, and aggregate.

The amortization of the unfunded actuarial accrued liability may be determined in level dollar amounts or as a level percentage of projected payroll of active plan members. The total unfunded actuarial accrued liability may be amortized as one amount, or components of the total may be separately amortized. The equivalent single amortization period for all components combined may not exceed the maximum acceptable period of 30 years.

### **ADDITIONAL COMMENTS**

The values in this GASB 45 valuation represent a closed group and do not reflect new entrants after the census collection date.

### Section V

### Representative Claim Costs

Based on combined actual claims and premium experience, age-related representative per capita claims cost were developed. This section shows the development of these costs.

### REPRESENTATIVE 2007 PER CAPITA MEDICAL CLAIM COSTS FOR TOWN PLAN

### I. DEVELOPMENT OF PER CAPITA RETIREE CLAIM COSTS

\$11,016,002 Total Estimated Premium

\$1,377,431 Estimated Children's Premium

\$9,638,571 Employer Primary Premium Based Claims

\$693,508 Medicare Primary Premium Based Claims

\$10,332,079 Total Premium Based Claims

\$9,836 Retiree (Pre-65) Average Per Capita Claim

\$5,175 Retirce (Post-65) Average Per Capita Claim

### ALL ACTIVE PARTICIPANTS EMPLOYER PRIMARY

			Male	Female	Aged (M)	Aged (F)	Age
Age	Number	Number	Aging	Aging	Average	Average	Related
<u>Bracket</u>	of Males	of Females	<u>Factor</u>	<u>Factor</u>	<u>Claims</u>	<u>Claims</u>	<u>Claims</u>
24 & under	9	6	0.549	1.312	\$2,601	\$6,215	\$60,694
25 - 29	33	59	0.591	1.312	\$2,800	\$6,215	\$459,061
30 - 34	49	69	0.712	1.312	\$3,373	\$6,215	\$594,087
35 - 39	71	75	0.850	1.312	\$4,026	\$6,215	\$751,988
40 - 44	67	79	1.000	1.312	\$4,737	\$6,215	\$808,348
45 - 49	74	115	1.193	1.456	\$5,651	\$6,897	\$1,211,338
50 - 54	106	113	1.441	1.599	\$6,826	\$7,574	\$1,579,450
55 - 59	102	104	1.753	1.740	\$8,304	\$8,242	\$1,704,188
60 - 64	46	30	2.102	1.968	\$9,957	\$9,322	\$737,692
65 - 69	<u>8</u>	<u>3</u>	2.316	2.168	\$10,971	\$10,270	<u>\$118,575</u>
Employer Primary Sub.	565	653					\$8,025,422

### ALL RETIREE PARTICIPANTS EMPLOYER PRIMARY

			Male	remale	Aged (M)	Aged (F)	Age
Age	Number	Number	Aging	Aging	Average	Average	Related
<u>Bracket</u>	of Males	of Females	<b>Factor</b>	Factor	<u>Claims</u>	<u>Claims</u>	<u>Claims</u>
44 & under	1	1	1.000	1.312	\$4,737	\$6,215	\$10,952
45 - 49	0	3	1.193	1.456	\$5,651	\$6,897	\$20,691
50 - 54	3	11	1.441	1.599	\$6,826	\$7,574	\$103,796
55 - 59	24	23	1.753	1.740	\$8,304	\$8,242	\$388,864
60 - 64	23	23	2.102	1.968	\$9,957	\$9,322	\$443,424
65 - 69	5	9	2.316	2.168	\$10,971	\$10,270	\$147,281
70 - 74	3	1	2.557	2.396	\$12,112	\$11,350	\$47,687
75 - 79	1	10	2.769	2.593	\$13,117	\$12,283	\$135,945
80 - 84	4	6	2.910	2.724	\$13,784	\$12,903	\$132,558
85 - 89	2	7	3.059	2.864	\$14,490	\$13,567	\$123,947
90 & Over	<u>1</u>	<u>3</u>	3.215	3.010	\$15,229	\$14,258	\$58,004
Employer Primary Sub.	67	97					\$1,613,149

### ALL RETIREE PARTICIPANTS MEDICARE PRIMARY

Age	Number	Number	Male Aging	Female Aging	Aged (M) Average	Aged (F) Average	Age Related
Bracket	of Males	of Females	Factor	Factor	Claims	Claims	Claims
65 - 69	25	19.	2.316	2.168	\$4,759	\$4,454	\$203,598
70 - 74	12	17	2.557	2.396	\$5,254	\$4,923	\$146,734
75 - 79	15	23	2.769	2.593	\$5,689	\$5,328	\$207,876
80 - 84	8	8	2.910	2.724	\$5,979	\$5,597	\$92,607
85 - 89	3	3	3.059	2.864	\$6,285	\$5,884	\$36,509
90 & Over	<u>0</u>	<u>1</u>	3.215	3.010	\$6,606	\$6,184	\$6,184
Medicare Primary Sub.	63	71					\$693,508
Retiree Subtotal	<u>130</u>	<u>168</u>					<u>\$2,306,657</u>
Grand Total	<u>695</u>	<u>821</u>		_			<u>\$10,332,079</u>

### REPRESENTATIVE 2007 PER CAPITA MEDICAL CLAIM COSTS FOR TOWN PLAN

### II. PREMIUM BASED CLAIM BUCKETS:

<u>People</u>	<u>Premium</u>	Annualized
31	\$543.81	\$202,297
70	\$583.09	\$489,796
46	\$509.54	\$281,266
225	\$604.23	\$1,631,421
38	\$413.43	\$188,524
<u>18</u>	\$411.52	<u>\$88,888</u>
428		\$2,882,192
41	\$1,300.61	\$639,900
72	\$1,394.53	\$1,204,874
66	\$1,218.64	\$965,163
323	\$1,445.12	\$5,601,285
28	\$826.86	\$277,825
<u>14</u>	\$823.04	\$138,271
544		\$8,827,318
972		\$11,709,510
	31 70 46 225 38 18 428 41 72 66 323 28 14 544	31 \$543.81 70 \$583.09 46 \$509.54 225 \$604.23 38 \$413.43 18 \$411.52 428 41 \$1,300.61 72 \$1,394.53 66 \$1,218.64 323 \$1,445.12 28 \$826.86 14 \$823.04

### **Section VI**

### **Plan Provisions**

This section details the plan provisions for the postretirement medical insurance benefit plan.

### PLAN PROVISIONS RETIREE MEDICAL AND LIFE INSURANCE PLANS

a. Plan Types:

Medical:

Town: Self Insured HMO and PPO through BlueCross/BlueShield and

Harvard Pilgrim.

GIC: Fully insured Fallon HMO, Health New England HMO and Commonwealth

Indemnity Plan, through the Commonwealth of Massachusetts Group

Insurance Commission

Life Insurance: Town: \$2,000 GIC: \$2,000

Medicare Reimbursement:

Town: Yes GIC: No

b. Eligibility:

**Town:** Age 55 with at least 10 years of service or 20 years of service. **GIC:** Age 55 with at least 10 years of service or 20 years of service.

c. Benefit/Cost Sharing:

Medical

Town:

Retirees annual contribution:

				Percent
		Total	Employee	Employee
Network Blue		<u>Premium</u>	<b>Contribution</b>	<u>Contributes</u>
New England	Individual	\$6,525.72	\$1,186.32	18%
НМО	Family	\$15,607.32	\$2,837.28	18%
Network Blue	Individual	\$6,997.08	\$1,749.36	25%
New England PPO	Family	\$16,734.36	\$4,183.68	25%
Harvard Pilgrim	Individual	\$6,114.48	\$1,186.32	19%
НМО 90	Family	\$14,623.68	\$2,837.28	19%
Harvard Pilgrim	Individual	\$7,250.76	\$1,799.52	25%
PPO	Family	\$17,341.44	\$4,303.68	25%
Medicare Plans	Individual	\$4,961.16	\$1,240.44	25%
BlueCross/BlueShield MEDEX	Family	\$9,922.32	\$2,480.40	25%
Harvard Pilgrim	Individual	\$4,938.24	\$1,217.40	25%
Enhanced 65	Family	\$9,876.48	\$2,469.36	25%

### PLAN PROVISIONS (cont.)

c. Benefit/Cost Sharing (continued:)

Medical GIC:

The retiree pays 10% of the medical insurance premium shown below.

Non-Medicare Plans

Commonwealth Indemnity Plan without CIC

Individual Family \$8,955.60 \$21,523.20

Fallon Community Health Select Care HMO

Individual \$5,191.20 Family \$12,315.60

Health New England HMO

Individual \$4,737.60 Family \$11,736.00

Medicare Plans

Commonwealth Indemnity Plan

 Individual
 \$4,046.40

 Dependent
 \$4,046.40

Health New England MedRate

Individual \$4,756.80 Dependent \$ \$4,756.80

Life Insurance:

**Town:** The retiree pays \$2.16 annually **GIC:** The retiree pays \$10.80 annually

Medicare Part B:

Town: The town pays 75% of the premium for the retiree and 50% for the

surviving spouse.

GIC: The retiree pays the full premium of the Medicare Part B premium

d. Spouse Benefit:

Town: Yes

GIC: Yes

e. Surviving Spouse Benefit:

Town: Yes

GIC: No

f. Drug Plan:

Town: CanaRX mail order program where the town pays the entire

expense of the drugs. Used \$425.88 as an estimated annual cost

per person.

GIC: None

g. Annual Life Premium: **Town:** \$8.64

GIC:

\$64.08

### **Section VII**

### **Appendices**

### <u>APPENDIX - I.</u>

### ACTIVE EMPLOYEE BY AGE AND SERVICE

### **AS OF JULY 1, 2007**

					<u>Servi</u>	<u>e</u>				
Age	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40+	Total
0 - 19	0	0	0	0	0	0	0	0	0	0
20 - 24	9	0	0	0	0	0	0	0	0	9
25 - 29	33	6	0	0	0	0	0	0	0	39
30 - 34	28	19	3	0	0	0	0	0	0	50
35 - 39	20	20	14	0	0	0	0	0	0	54
40 - 44	9	18	9	10	l	2	0	0	0	49
45 - 49	16	21	15	11	4	6	1	0	0	74
50 - 54	10	16	14	20	11	9	7	0	0	87
55 - 59	6	16	13	12	7	8	5	3	0	70
60 - 64	2	2	2	3	4	3	4	2	0	22
65 - 69	0	0	0	1	0	0	0	0	0	1
70 - 74	0	1	0	1	0	. 0	0	0	0	2
75 - 79	0	0	0	0	0	0	0	0	0	0
80 - 84	0	0	0	0	0	0	0	0	0	0
85 and Over	0	0	0	0	0	0	0	0	0	0
Total	133	119	70	58	27	28	17	5	0	457

### APPENDIX - II

# ALTERNATIVE ACTUARIAL COST AND AMORTIZATION METHODS

(Assumes a 4.25% Return on Supporting Assets)

1. Projected Barelit Paymens         \$ 227,263,214         \$ 327,264,214         \$ 327,264,214         \$ 327,264,214         \$ 327,264,214         \$ 327,264,21         \$ 323,47,228         \$ 323,47,228         \$ 327,47,428         \$ 323,47,428         \$ 327,47,428         \$ 323,47,428         \$ 323,47,428         \$ 323,47,428         \$ 323,47,428         \$ 323,47,428         \$ 323,47,428         \$ 323,47,428         \$ 323,			Entry Age		Frozen Entry Age	∢∣	Attained Age	⋖	Frozen Attained Age		Projected Unit Credit	⋖୲	Aggregate
\$ 68,990,212 \$ 68,990,212 \$ 78,475,645 \$ 78,475,645 \$ 78,475,645 \$ 101,823,473 \$ 101,823,473 \$ 101,823,473 \$ 101,823,473 \$ 101,823,473 \$ 101,823,473 \$ 101,823,473 \$ 101,823,473 \$ 101,823,473 \$ 101,823,473 \$ 101,823,473 \$ 101,823,473 \$ 101,823,473 \$ 101,823,201 \$ 1,840,900 \$ 1,840,900 \$ 1,840,900 \$ 1,840,900 \$ 1,840,900 \$ 1,840,900 \$ 1,840,900 \$ 1,840,900 \$ 1,840,900 \$ 1,840,900 \$ 1,840,900 \$ 1,840,900 \$ 1,840,900 \$ 1,840,900 \$ 1,840,900 \$ 1,840,900 \$ 1,840,900 \$ 1,930,012 \$ 1,938,267 \$ 1,938,268 \$ 1,946,341 \$ 1,946,3	1. Projected Benefit Payments		327,263,214		327,263,214	↔	327,263,214		327,263,214	69			27,263,214
\$ 68,990,212 \$ 68,990,212 \$ 78,475,645 \$ 78,475,645 \$ 8 101, \$ 32,833,261 \$ 32,833,261 \$ 23,347,828 \$ 23,347,828 \$ 101, \$ \$ 32,833,261 \$ 32,833,261 \$ 23,347,828 \$ 23,347,828 \$ 101, \$ \$ 68,990,212 \$ 68,990,212 \$ 78,475,645 \$ 78,475,645 \$ 78,475,645 \$ 101, \$ \$ 2,908,177 \$ 3,398,021 \$ 3,308,021,239 \$ 3,308,021 \$ 3,308,021 \$ 3,308,021 \$ 3,308,021 \$ 3,308,0	2. Present Value of Projected Benefit Payments		101,823,473		101,823,473	\$	101,823,473	<del>59</del>	101,823,473	↔			01,823,473
5 32,833,261 \$ 32,833,261 \$ 23,347,828 \$ 23,347,828 \$ 101.  5 68,990,212 \$ 68,990,212 \$ 78,475,645 \$ 78,475,645 \$ 78,475,645 \$ 8 101.  5 2,908,177 \$ 2,908,177 \$ 3,308,021 \$ 3,308,021 \$ 3,308,022 \$ 8 1,938,267 \$	3. Actuarial Accrued Liability (AAL)	<del>\$</del>	68,990,212	<del>59</del>	68,990,212	64	78,475,645	<del>64</del>	78,475,645	69		€9	
\$ 68,990,212 \$ 68,990,212 \$ 78,475,645 \$ 78,475,645 \$ 78,475,645 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	4. Present Value of Future Normal Costs (23.)	<del>5</del> 9	32,833,261	↔	32,833,261	↔	23,347,828	<del>4∕9</del>	23,347,828	<del>6/3</del>			01,823,473
\$ 68,990,212 \$ 68,990,212 \$ 78,475,645 \$ 78,475,645 \$ 78,475,645 \$ 8 \$ 2,617,231 \$ 2,591,130 \$ 1,840,900 \$ 1,840,900 \$ 2,863,061 \$ 8 \$ 2,908,177 \$ 2,908,177 \$ 3,308,021 \$ 3,308,021 \$ 3,308,022 \$ 2,908,177 \$ 2,908,177 \$ 3,308,021 \$ 3,308,021 \$ 3,308,022 \$ 5,21,084 \$ \$ 5,719,050 \$ 5,601,839 \$ 5,326,562 \$ 5,326,562 \$ 6,392,167 \$ 8 \$ 5,719,050 \$ 5,601,839 \$ 5,326,562 \$ 5,326,562 \$ 6,392,167 \$ 8 \$ 3,308,021 \$ 3,308,021 \$ 8 \$ 3,000,220 \$ 8 \$ 3,000,230 \$ 8 \$ 3,000,	5. Assets	6 <del>/5</del>	•	↔	•	↔	•	€-9	ı	↔	,	<del>5-9.</del>	
\$ 2,617,231 \$ 2,591,130 \$ 1,840,900 \$ 1,840,900 \$ 2,863,061 \$ 8 \$ 193,642 \$ 192,532 \$ 177,641 \$ 177,641 \$ 2,908,177 \$ 3,308,021 \$ 3,308,021 \$ 3,308,021 \$ 2,908,177 \$ 3,308,021 \$ 3,308,021 \$ 3,308,021 \$ 2,208,177 \$ 1,938,268 \$ 1,938,268 \$ 1,938,268 \$ 1,938,228 \$ 1,938,239 \$ 1,938,23	6. Unfunded UAAL	<del>50</del>	68,990,212	60	68,990,212	<del>60</del>	78,475,645	89	78,475,645	↔		<del>59</del>	
\$ 2,617,231 \$ 2,591,130 \$ 1,840,900 \$ 1,840,900 \$ 2,863,061 \$ 8 \$ 2,908,177 \$ 2,908,177 \$ 3,308,021 \$ 3,308,021 \$ 3,308,022 \$ \$ 1,936,42 \$ 1,938,267 \$ 1,7,641 \$ 2,10,044 \$ \$ \$ 5,719,050 \$ 5,691,839 \$ 5,326,562 \$ 5,326,562 \$ 6,392,167 \$ 8 \$ 1,938,267 \$ 1,938,268 \$ 1,938,145 \$ 1,946,753 \$ 1,946,	7. Annual Required Contribution		٠										
\$ 1,938,267 \$ 1,938,267 \$ 1,938,267 \$ 1,938,021 \$ 3,308,021 \$ 2,908,177 \$ 2,908,177 \$ 3,308,021 \$ 3,308,021 \$ 3,308,022 \$ 8 \$ 199,642 \$ 192,532 \$ 177,641 \$ 177,641 \$ 221,084 \$ 8 \$ 1,938,267 \$ 1,938,27 \$ 1,9	a. Normal Cost	↔	2,617,231	↔	2,591,130	↔	1,840,900	↔	1,840,900	<del>59</del>		se.	8,025,567
\$ 193,642 \$ 192,532 \$ 177,641 \$ 177,641 \$ 221,084 \$ 5 5,719,050 \$ 5,691,839 \$ 5,326,562 \$ 5,326,562 \$ 6,392,167 \$ 8 8 9,719,050 \$ 5,691,839 \$ 5,326,562 \$ 5,326,562 \$ 6,392,167 \$ 1,938,26	b. Amortization of UAAL (30 yrs Level % of pay)	<del>\$4</del>	2,908,177	↔	2,908,177	↔	3,308,021	↔	3,308,021	S		<del>5/3</del>	
\$ 5,719,050 \$ 5,691,839 \$ 5,326,562 \$ 5,326,562 \$ 6,392,167 \$ 8 1,938,267 \$ 1,938,271 \$ 1,938,272 \$ 1,960,075 \$ 1,938,273 \$ 1,960,075 \$ 1,938,273 \$ 1,960,075 \$ 1,908,77 \$ 1,908,77 \$ 1,938,7	c. Interest	<del>\$5</del> -	193,642	↔	192,532	<del>5/)</del>	177,641	⇔	177,641	<del>5∕</del>		<del>6</del> /9	299,898
\$ 1,938,267 \$ 1,938,221 \$ 1,938,267 \$ 1,938,221 \$ 1,938,267 \$ 1,938,271 \$ 1,938,271 \$ 1,938,271 \$ 1,938,271 \$ 1,938,271 \$ 1,938,267 \$ 1,938,271 \$ 1,93	d. Total	↔	5,719,050	<del>50</del>	5,691,839	6A)	5,326,562	↔	5,326,562	64		6/9	8,325,465
\$ 3,944,073 \$ 3,944,073 \$ 4,486,341 \$ 4,486,341 \$ 4,486,341 \$ 5  \$ 2,908,177 \$ 2,908,177 \$ 3,308,021 \$ 3,308,021 \$ 3,308,021 \$ 5  \$ 4,348,833 \$ 4,348,833 \$ 4,946,753 \$ 4,946,753 \$ 5  \$ 4,348,833 \$ 4,348,833 \$ 4,946,753 \$ 4,946,753 \$ 5  \$ 3,356,159 \$ 3,356,159 \$ 3,817,596 \$ 3,817,596 \$ 3,817,596 \$ 5  \$ 4,977,873 \$ 4,977,873 \$ 5,662,278 \$ 5,874,190 \$ 5,8	8. Current Year Benefit Payment	<del>59</del>	1,938,267	<del>&gt;</del>	1,938,267	<del>6∕9</del>	1,938,267	↔	1,938,267	€4		<del>6</del> 4	1,938,267
\$ 3,944,073 \$ 3,944,073 \$ 4,486,341 \$ 4,486,341 \$ 4,486,341 \$ \$ 2,908,177 \$ 2,908,177 \$ 3,308,021 \$ 3,308,021 \$ 3,308,021 \$ 3,308,021 \$ 3,308,021 \$ 3,308,021 \$ 3,308,021 \$ \$ 4,348,833 \$ 4,946,753 \$ 4,946,753 \$ 4,946,753 \$ 8,946,778 \$ 8,946,778 \$	9. Alternate Amortization of UAAL:												
\$ 2,908,177 \$ 2,908,177 \$ 3,308,021 \$ 3,308,021 \$ 3,308,021 \$ \$ 4,348,833 \$ 4,348,833 \$ 4,946,753 \$ 4,946,753 \$ 4,946,753 \$ \$ 8,3356,159 \$ 3,356,159 \$ 3,817,596 \$ 3,817,596 \$ 3,817,596 \$ \$ 3,817,596 \$ \$ 3,817,596 \$ \$ 3,817,596 \$ \$ 3,817,596 \$ \$ 3,817,596 \$ \$ 3,817,596 \$ \$ 3,817,596 \$ \$ 3,817,596 \$ \$ \$ 3,817,596 \$ \$ \$ 3,817,596 \$ \$ \$ 3,817,596 \$ \$ \$ 3,817,596 \$ \$ \$ 3,817,596 \$ \$ \$ 3,817,596 \$ \$ \$ 3,817,596 \$ \$ \$ 3,817,596 \$ \$ \$ 3,817,596 \$ \$ \$ 3,817,596 \$ \$ \$ 3,817,596 \$ \$ \$ \$ 4,977,873 \$ \$ 5,662,278 \$ \$ 5,662,278 \$ \$ 5,662,278 \$ \$ 5,662,278 \$ \$ 5,662,278 \$ \$ 5,889,328 \$ \$ 6,889,328 \$ \$ 6,889,328 \$ \$ 6,889,328 \$ \$ 6,889,328 \$ \$ 5,164,170 \$ \$ 5,164,170 \$ \$ 5,874,190 \$	a. 30 Yrs Level Dollar	69	3,944,073	↔	3,944,073	∽	4,486,341	<del>⇔</del>	4,486,341	69		÷	
\$ 4,348,833       \$ 4,946,753       \$ 4,946,753       \$ 4,946,753       \$ 4,946,753       \$ 4,946,753       \$ 4,946,753       \$ 4,946,753       \$ 8       \$ 3,356,159       \$ 3,317,596       \$ 3,817,597       \$ 3,817,597       \$ 3,817,597       \$ 3,817,597 <t< td=""><td>b. 30 Yrs Level % of Pay</td><td><del>69</del></td><td>2,908,177</td><td>S</td><td>2,908,177</td><td>\$</td><td>3,308,021</td><td>↔</td><td>3,308,021</td><td>ᢒ</td><td></td><td><del>59</del></td><td>,</td></t<>	b. 30 Yrs Level % of Pay	<del>69</del>	2,908,177	S	2,908,177	\$	3,308,021	↔	3,308,021	ᢒ		<del>59</del>	,
\$ 3,356,159 \$ 3,356,159 \$ 3,817,596 \$ 3,817,596 \$ 5,662,278 \$ 5,862,228 \$ 5,164,170 \$ 5,874,190 \$ 5,87	c. 25 Yrs Level Dollar	<del>69</del>	4,348,833	↔	4,348,833	↔	4,946,753	↔	4,946,753	↔		<del>69</del>	1
\$ 4,977,873 \$ 4,977,873 \$ 5,662,278 \$ 5,662,278 \$ 5,662,278 \$ 5,662,278 \$ 5,662,278 \$ 5,662,278 \$ 5,605,608 \$ 6,056,608 \$ 6,889,328 \$ 6,889,328 \$ 6,889,328 \$ 5,164,170 \$ 5,164,170 \$ 5,874,190 \$ 5,874,190 \$ 5,874,190 \$ 5,874,190 \$ 5,874,190 \$ 5,874,190 \$ 5,164,170 \$ 5,164,170 \$ 5,874,190 \$ 5,87	d. 25 Yrs Level % of Pay	<del>6/5</del>	3,356,159	64	3,356,159	↔	3,817,596	€9	3,817,596	↔		↔	•
\$ 4,032,145 \$ 4,032,145 \$ 4,586,522 \$ 4,586,522 \$ 4,586,522 \$ 8,6056,608 \$ 6,056,608 \$ 6,889,328 \$ 6,889,328 \$ 6,889,328 \$ 5,164,170 \$ 5,164,170 \$ 5,874,190 \$ 5,874,190 \$ 5,874,190 \$ 5,874,190 \$ 5,164,170 \$ 5,164,170 \$ 5,874,190 \$ 5,874,190 \$ 5,874,190 \$ 5,164,170 \$ 5,874,190 \$ 5,874,190 \$ 5,874,190 \$ 5,877,190 \$ 5,104,170 \$ 5,1	e. 20 Yrs Level Dollar	6-7	4,977,873	6	4,977,873	↔	5,662,278	69	5,662,278	↔		↔	1
\$ 6,056,608 \$ 6,056,608 \$ 6,889,328 \$ 6,889,328 \$ 6,889,328 \$ 5,164,170 \$ 5,164,170 \$ 5,874,190 \$ 5,900,075 \$ 5,90	f, 20 Yrs Level % of Pay	↔	4,032,145	6 <del>9</del>	4,032,145	€?	4,586,522	S	4,586,522	<del>≎</del> ?		↔	ı
\$ 5,164,170 \$ 5,164,170 \$ 5,874,190 \$ 5,874,190 \$ 5,874,190 \$ 5,874,190 \$ 5,874,190 \$ 5,874,190 \$ 5,874,190 \$ 5,10	g. 15 Yrs Level Dollar	<del>59</del>	6,056,608	64	6,056,608	↔	6,889,328	↔	6,889,328	69		66	,
\$ 6,798,971 \$ 6,771,761 \$ 6,554,961 \$ 6,554,961 \$ 7,620,563 \$ 5,719,050 \$ 5,691,839 \$ 5,326,562 \$ 5,326,562 \$ 6,392,167 \$ \$ 7,220,934 \$ 7,193,723 \$ 7,034,940 \$ 7,034,940 \$ 8,100,543 \$ \$ 6,186,071 \$ 6,158,861 \$ 5,857,794 \$ 5,857,794 \$ 6,923,397 \$ \$ 7,876,708 \$ 7,849,497 \$ 7,780,875 \$ 7,780,875 \$ 8,846,478 \$ \$ 6,890,786 \$ 6,863,576 \$ 6,659,399 \$ 7,725,004 \$ \$ 9,001,289 \$ 8,974,079 \$ 9,060,075 \$ 9,060,075 \$ 10,125,677 \$ \$ 8,070,922 \$ 8,043,712 \$ 8,001,793 \$ 8,001,793 \$ 9,067,396 \$	h. 15 Yrs Level % of Pay	ᢒ	5,164,170	6∕9	5,164,170	↔	5,874,190	64	5,874,190	↔		÷÷	
\$ 6,798,971 \$ 6,771,761 \$ 6,554,961 \$ 6,554,961 \$ 7,620,563 \$ 5,719,050 \$ 5,691,839 \$ 5,326,562 \$ 5,326,562 \$ 6,392,167 \$ 8 7,220,934 \$ 7,193,723 \$ 7,034,940 \$ 7,034,940 \$ 8,100,543 \$ 8 8,100,543 \$	10. Alternate Annual Required Contribution												
\$ 5,719,050 \$ 5,691,839 \$ 5,326,562 \$ 5,326,562 \$ 6,392,167 \$ 8 7,220,934 \$ 7,193,723 \$ 7,034,940 \$ 7,034,940 \$ 8,100,543 \$ 8 6,186,071 \$ 6,158,861 \$ 5,857,794 \$ 5,857,794 \$ 6,923,397 \$ 8 7,876,708 \$ 7,849,497 \$ 7,780,875 \$ 7,780,875 \$ 8,846,478 \$ 8 6,890,786 \$ 6,893,576 \$ 6,659,399 \$ 6,659,399 \$ 7,725,004 \$ 8 9,001,289 \$ 8,974,079 \$ 9,060,075 \$ 9,060,075 \$ 10,125,677 \$ 8 8,070,922 \$ 8,043,712 \$ 8,001,793 \$ 8,001,793 \$ 9,067,396 \$ \$	a. 30 Yrs Level Dollar	↔	6,798,971	64	6,771,761	↔	6,554,961	€	6,554,961	<del>69</del>		÷	8,325,465
\$ 7,220,934 \$ 7,193,723 \$ 7,034,940 \$ 7,034,940 \$ 8,100,543 \$ 8 6,186,071 \$ 6,158,861 \$ 5,857,794 \$ 5,857,794 \$ 6,923,397 \$ \$ \$ 7,876,708 \$ 7,849,497 \$ 7,780,875 \$ 7,780,875 \$ 8,846,478 \$ \$ \$ 6,890,786 \$ 6,863,576 \$ 6,659,399 \$ 7,725,004 \$ \$ 8,901,289 \$ 8,974,079 \$ 9,060,075 \$ 9,060,075 \$ 10,125,677 \$ \$ 8,070,922 \$ 8,043,712 \$ 8,001,793 \$ 8,001,793 \$ 9,067,396 \$	b. 30 Yrs Level % of Pay	↔	5,719,050	64	5,691,839	₩,	5,326,562	∽	5,326,562	<del>\$9</del>		<del>&gt;</del>	8,325,465
\$ 6,186,071 \$ 6,158,861 \$ 5,857,794 \$ 5,857,794 \$ 6,923,397 \$ 5 7,876,708 \$ 7,849,497 \$ 7,780,875 \$ 7,780,875 \$ 8,846,478 \$ 5,890,786 \$ 6,863,576 \$ 6,659,399 \$ 6,659,399 \$ 7,725,004 \$ \$ 9,001,289 \$ 8,974,079 \$ 9,060,075 \$ 10,125,677 \$ \$ 8,070,922 \$ 8,043,712 \$ 8,001,793 \$ 8,001,793 \$ 9,067,396 \$	c. 25 Yrs Level Dollar	<del>59</del>	7,220,934	<del>69</del>	7,193,723	<del>\$4</del>	7,034,940	€	7,034,940	<del>\$4</del>		<del>5/3</del>	8,325,465
\$ 7,876,708 \$ 7,849,497 \$ 7,780,875 \$ 7,780,875 \$ 8,846,478 \$ 80,890,786 \$ 6,863,576 \$ 6,659,399 \$ 6,659,399 \$ 7,725,004 \$ \$ 8,974,079 \$ 9,060,075 \$ 10,125,677 \$ 9,801,793 \$ 8,070,922 \$ 8,043,712 \$ 8,001,793 \$ 8,001,793 \$ 9,067,396 \$	d. 25 Yrs Level % of Pay	↔	6,186,071	69	6,158,861	⇔	5,857,794	64	5,857,794	69		<del>59</del>	8,325,465
ay \$ 6,890,786 \$ 6,863,576 \$ 6,659,399 \$ 7,725,004 \$ \$ 5,004,079 \$ 9,060,075 \$ 10,125,677 \$ ay \$ \$ 8,070,922 \$ 8,043,712 \$ 8,001,793 \$ 8,001,793 \$ 9,067,396 \$	e. 20 Yrs Level Dollar	↔	7,876,708	∽	7,849,497	<del>64)</del>	7,780,875	÷	7,780,875	↔		↔	8,325,465
\$ 9,001,289 \$ 8,974,079 \$ 9,060,075 \$ 9,060,075 \$ 10,125,677 \$ ay	f. 20 Yrs Level % of Pay	↔	6,890,786	<del>5∕3</del>	6,863,576	<del>5/9</del>	6,659,399	€9	6,659,399	₩,		÷	8,325,465
\$ 8,070,922 \$ 8,043,712 \$ 8,001,793 \$ 8,001,793 \$ 9,067,396 \$	g. 15 Yrs Level Dollar	↔	9,001,289	<del>69</del>	8,974,079	↔	9,060,075	∽	9,060,075	<del>69</del>		<del>50</del>	8,325,465
	h. 15 Yrs Level % of Pay	<del>5/)</del>	8,070,922	€⁄3	8,043,712	↔	8,001,793	64	8,001,793	↔		<del>5/9</del>	8,325,465

### APPENDIX - III

APPENDIX SECTION VII.

# ALTERNATIVE ACTUARIAL COST AND AMORTIZATION METHODS

м ж ж ж ж ж ж ж ж ж ж ж ж ж ж ж ж ж ж ж													
\$ 327,263,214 \$ 327,244 \$ 327,			Entry Age	111	Frozen intry Age	₹	tained Age	∢	Frozen <u>ttained Age</u>		Projected nit Credit		Aggregate
\$ 46,840,277 \$ 46,840,277 \$ 49,665,320 \$ 49,665,320 \$ 5,472,976 \$	1. Projected Benefit Payments	↔			327,263,214		327,263,214		327,263,214		27,263,214	↔	327,263,214
\$ 46,840,277 \$ 46,840,277 \$ 9,807,656 \$ 9,807,656 \$ 5 55  \$ 12,632,699 \$ 12,632,699 \$ 9,807,656 \$ 9,807,656 \$ 5 55  \$ 46,840,277 \$ 46,840,277 \$ 49,665,320 \$ 49,665,320 \$ 49,665,320 \$ 5 55  \$ 46,840,277 \$ 46,840,277 \$ 49,665,320 \$ 49,665,320 \$ 49,665,320 \$ 5 1,291,111 \$ 1,241,977 \$ 9,645,811 \$ 9,845,81 \$ 1,562,450 \$ 5 1,219,197 \$ 2,719,197 \$ 2,883,198 \$ 2,883,198 \$ 2,883,199 \$ 2,212,882 \$ 2,719,197 \$ 2,883,198 \$ 2,883,198 \$ 2,883,199 \$ 2,833,199 \$ 2,719,197 \$ 2,719,197 \$ 2,883,198 \$ 2,891,522 \$ 2,991,922 \$ 3,982,997 \$ 3,991,922 \$	2. Present Value of Projected Benefit Payments	€≏		<b>∽</b>	59,472,976	<del>6</del>	59,472,976	<b>6</b>	59,472,976	↔	59,472,976	∻	59,472,976
5 12,632,699 \$ 12,632,699 \$ 9,807,656 \$ 9,807,656 \$ 9,807,656 \$ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	3. Actuarial Accrued Liability (AAL)	↔		∻	46,840,277	\$	49,665,320	€9	49,665,320	<del>\$</del>	49,665,320	<del>&gt;</del> >	ı
\$ 46,840,277 \$ 46,840,277 \$ 964,581 \$ 964,581 \$ 1,362,450 \$ 95,65,320 \$ 964,681 \$ 1,291,111 \$ 1,241,977 \$ 964,581 \$ 2,883,198 \$ 2,883,198 \$ 2,883,199 \$ 2,719,197 \$ 2,719,197 \$ 2,883,198 \$ 2,883,198 \$ 2,883,199 \$ 2,293,577 \$ 209,443 \$ 2,01,505 \$ 201,505 \$ 203,437 \$ 3,527,747 \$ 3,527,747 \$ 3,740,214 \$ 3,740,514 \$ 3,740,419 \$ 3,740,414 \$ 3,740		↔		↔	12,632,699	69	9,807,656	↔	9,807,656	€	9,807,656	64	59,472,976
\$ 46,840,277 \$ 46,840,277 \$ 49,665,320 \$ 49,665,320 \$ 49,665,320 \$ 5 1,291,111 \$ 1,241,977 \$ 964,581 \$ 964,581 \$ 1,281,199 \$ 2,719,197 \$ 2,883,198 \$ 2,883,198 \$ 2,883,198 \$ 2,883,198 \$ 2,883,198 \$ 2,213,802 \$ 4,223,190 \$ 4,170,617 \$ 4,049,284 \$ 4,049,284 \$ 4,475,006 \$ 2,719,197 \$ 2,719,197 \$ 2,883,198 \$ 2,883,198 \$ 2,883,198 \$ 3,527,747 \$ 3,527,747 \$ 3,740,514 \$ 3,740,514 \$ 3,740,514 \$ 3,770,197 \$ 2,719,197 \$ 2,883,198 \$ 2,883,198 \$ 2,883,198 \$ 3,786,438 \$ 3,786,438 \$ 3,740,514 \$ 3	5. Assets	69		<del>\$</del>	,	<del>⇔</del>	ı	↔	*	€	ı	<del>6</del>	ī
\$ 1,291,111 \$ 1,241,977 \$ 964,581 \$ 964,581 \$ 1,362,450 \$ 2,719,197 \$ 2,719,197 \$ 2,883,198 \$ 2,883,198 \$ 2,883,199 \$ 2,719,197 \$ 2,719,197 \$ 2,883,198 \$ 2,883,198 \$ 2,883,199 \$ 2,12,882 \$ 209,443 \$ 201,505 \$ 201,505 \$ 201,505 \$ 229,357 \$ 2,229,357 \$ 4,222,190 \$ 4,170,617 \$ 4,049,284 \$ 4,049,284 \$ 4,049,284 \$ 4,475,006 \$ 1,938,267 \$ 1,938,241 \$ 1,938,2	6. Unfunded UAAL .	<del>69</del>		€9	46,840,277	↔	49,665,320	€9	49,665,320	∽	49,665,320	<del>\$9</del>	,
\$ 1,291,111 \$ 1,241,977 \$ 964,581 \$ 964,581 \$ 1,362,450 \$ 212,882 \$ 209,443 \$ 201,505 \$ 201,505 \$ 201,505 \$ 229,357 \$ 212,882 \$ 209,443 \$ 201,505 \$ 201,505 \$ 229,357 \$ 212,882 \$ 209,443 \$ 201,505 \$ 201,505 \$ 229,357 \$ 212,882 \$ 4,170,617 \$ 4,049,284 \$ 4,049,284 \$ 4,049,284 \$ 4,475,006 \$ 1,938,267 \$ 1,938,241 \$ 1,938,267 \$ 1,938,267 \$ 1,938,267 \$ 1,938,267 \$ 1,938,241 \$ 1,938,	7. Annual Required Contribution												
\$ 2,719,197 \$ 2,719,197 \$ 2,883,198 \$ 2,883,198 \$ 2,883,199 \$ 212,882 \$ 209,443 \$ 201,505 \$ 201,505 \$ 229,357 \$ 221,582 \$ 4,170,617 \$ 4,049,284 \$ 4,049,284 \$ 4,475,006 \$ 229,357 \$ 2,923,267 \$ 1,938,297 \$ 1,938,267 \$ 1,938,27 \$ 1,93	a. Normal Cost		1,291,111	<del>\$</del>	1,241,977	<del>54)</del>	964,581	⇔	964,581	<del>50</del>	1,362,450	÷÷	5,850,531
\$ 212,882 \$ 209,443 \$ 201,505 \$ 220,557 \$ 229,357 \$ 4,223,190 \$ 4,170,617 \$ 4,049,284 \$ 4,049,284 \$ 4,475,006 \$ 1,938,267 \$ 1,938,27 \$ 1,9	b. Amortization of UAAL (30 yrs Level % of pay)		2,719,197	↔	2,719,197	S	2,883,198	<b>⇔</b>	2,883,198	S	2,883,199	<del>60</del>	•
\$ 4,223,190 \$ 4,170,617 \$ 4,049,284 \$ 4,049,284 \$ 4,475,006 \$ \$ 1,938,267 \$ 1,938,267 \$ 1,938,267 \$ 1,938,267 \$ 1,938,267 \$ 1,938,267 \$ 1,938,267 \$ 1,938,267 \$ 1,938,267 \$ 1,938,267 \$ 1,938,267 \$ 2,719,197 \$ 2,719,197 \$ 2,719,197 \$ 2,883,198 \$ 2,883,198 \$ 2,883,198 \$ 2,991,922 \$ 3,756,438 \$ 3,756,438 \$ 3,726,438 \$ 3,726,438 \$ 3,982,997 \$ 3,982,997 \$ 3,982,997 \$ 3,982,997 \$ 3,982,997 \$ 3,982,997 \$ 3,982,997 \$ 3,416,732 \$ 3,72,371 \$ 3,172,371 \$ 3,172,371 \$ 3,416,732 \$ 3,416,732 \$ 3,622,803 \$ 3,622,803 \$ 3,622,803 \$ 3,622,803 \$ 3,622,803 \$ 3,622,803 \$ 3,416,732 \$ 3,416,732 \$ 3,416,732 \$ 3,416,732 \$ 3,622,803 \$ 3,622,903 \$ 3,6	c. Interest	<del>\$4)</del>	212,882	↔	209,443	S	201,505	↔	201,505	<del>60</del>	229,357		341,698
\$ 1,938,267 \$ 1,938,267 \$ 1,938,267 \$ 1,938,267 \$ 1,938,267 \$ \$ 3,527,747 \$ 3,527,747 \$ 3,740,514 \$ 3,740,514 \$ 3,740,514 \$ \$ 2,719,197 \$ 2,719,197 \$ 2,883,198 \$ 2,883,198 \$ 2,883,198 \$ 2,599,922 \$ 3,756,438 \$ 3,982,997 \$ 3,982,997 \$ 3,982,997 \$ 3,982,997 \$ 3,982,997 \$ 3,982,997 \$ 3,982,997 \$ 3,982,997 \$ 3,982,997 \$ 3,756,438 \$ 3,756,438 \$ 3,726,438 \$ 3,726,371 \$ 3,172,371 \$ 3,172,371 \$ 3,172,371 \$ 3,172,371 \$ 3,172,371 \$ 3,172,371 \$ 3,172,371 \$ 3,172,371 \$ 3,172,371 \$ 3,172,371 \$ 3,172,371 \$ 3,172,371 \$ 3,416,732 \$ 3,416,732 \$ 3,622,803 \$ 3,622,803 \$ 3,622,803 \$ 3,416,732 \$ 3,416,732 \$ 3,622,803 \$ 3,622,304 \$ 3,622,304 \$ 3,622,318 \$	d. Total	ઝ	4,223,190	↔	4,170,617	<b>€</b> 9	4,049,284	\$	4,049,284	€4	4,475,006		6,192,229
\$ 3,527,747 \$ 3,527,747 \$ 3,740,514 \$ 3,740,514 \$ 3,740,514 \$ \$ 3,740,514 \$ \$ \$ 2,719,197 \$ 2,883,198 \$ 2,883,198 \$ 2,883,198 \$ \$ 3,756,438 \$ 3,756,438 \$ 3,982,997 \$ 3,982,997 \$ 3,982,997 \$ \$ 3,975,438 \$ \$ 3,756,438 \$ 3,982,997 \$ 3,982,997 \$ 3,982,997 \$ \$ 3,91,922 \$ \$ 2,991,922 \$ 3,172,371 \$ 3,172,371 \$ \$ 3,172,371 \$ \$ 3,416,732 \$ \$ 3,416,732 \$ 3,416,732 \$ 3,622,803 \$ 3,622,803 \$ 3,622,803 \$ \$ 3,622,803 \$ \$ 3,622,803 \$ \$ 3,622,803 \$ \$ 3,416,732 \$ \$ 3,416,732 \$ \$ 3,416,732 \$ \$ 3,416,732 \$ \$ 3,416,732 \$ \$ 3,622,803 \$ \$ 4,396,674 \$ \$ 4,396,674 \$ \$ 4,396,674 \$ \$ 4,396,674 \$ \$ 4,396,674 \$ \$ 4,396,674 \$ \$ 4,396,674 \$ \$ 5,226,069 \$ 5,226,069 \$ 5,226,069 \$ 5,226,069 \$ 5,226,069 \$ 5,226,069 \$ 5,226,318 \$ 5,621,789 \$ \$ \$ 5,735,040 \$ 5,682,467 \$ 5,652,318 \$ 5,652,318 \$ 5,652,318 \$ 5,636,381 \$ \$ 6,456,460 \$ 6,403,887 \$ 6,417,248 \$ 6,417,248 \$ 6,417,248 \$ 6,492,683 \$ 5,568,704 \$ 5,668,704 \$	8. Current Year Benefit Payment	69	1,938,267	↔	1,938,267	↔	1,938,267	↔	1,938,267	<del>∽</del>	1,938,267	ᢒ	1,938,267
\$ 3,527,747 \$ 3,527,747 \$ 3,740,514 \$ 3,740,514 \$ 3,740,514 \$ \$ 2,719,197 \$ 2,719,197 \$ 2,883,198 \$ 2,883,198 \$ 2,719,197 \$ 2,756,438 \$ 3,982,997 \$ 3,982,997 \$ 3,982,997 \$ 3,756,438 \$ 3,756,438 \$ 3,172,371 \$ 3,172,371 \$ 3,172,371 \$ 3,172,371 \$ 3,172,371 \$ 3,416,732 \$ 3,416,732 \$ 3,416,732 \$ 3,416,732 \$ 3,622,803 \$ 3,622,803 \$ 3,622,803 \$ \$ 4,806,365 \$ 4,806,365 \$ 5,096,248 \$	9. Alternate Amortization of UAAL:												
\$ 2,719,197 \$ 2,719,197 \$ 2,883,198 \$ 2,883,198 \$ 2,883,198 \$ 8 \$ 3,756,438 \$ 3,756,438 \$ 3,982,997 \$ 3,982,997 \$ 3,982,997 \$ 8 \$ 2,991,922 \$ 2,991,922 \$ 3,172,371 \$ 3,172,371 \$ 3,172,371 \$ 8 \$ 4,132,141 \$ 4,132,141 \$ 4,381,360 \$ 4,381,360 \$ 4,381,360 \$ 4,381,360 \$ 8 \$ 4,806,365 \$ 4,806,365 \$ 5,096,248 \$	a. 30 Yrs Level Dollar	64	3,527,747	49	3,527,747	÷	3,740,514	69	3,740,514	<del>69</del>	3,740,514	∻	•
\$ 3,756,438 \$ 3,756,438 \$ 3,982,997 \$ 3,982,997 \$ 5,991,922 \$ 2,991,922 \$ 3,172,371 \$ 3,172,371 \$ 3,172,371 \$ 3,172,371 \$ 3,172,371 \$ 3,172,371 \$ 3,172,371 \$ 3,172,371 \$ 3,172,371 \$ 3,172,371 \$ 3,416,732 \$ 3,416,732 \$ 3,622,803 \$ 3,622,804 \$ 3,646,423 \$ 3,622,318 \$ 3,622,318 \$ 3,632,937 \$ 3,632,942 \$ 3,642,968 \$ 3,642,968 \$ 3,642,964 \$ 3,642,923 \$ 3,668,704 \$ 3,668,704 \$ 3,604,423 \$ 3,642,423 \$ 3,642,423 \$ 3,642,423 \$ 3,642,423 \$ 3,642,423 \$ 3,642,423 \$ 3,642,423 \$ 3,642,423 \$ 3,642,423 \$ 3,642,423 \$ 3,642,423 \$ 3,642,442 \$ 3,642,423 \$ 3,642,423 \$ 3,642,423 \$ 3,642,423 \$ 3,642,423 \$ 3,642,423 \$ 3,642,423 \$ 3,642,423 \$ 3,642,423 \$ 3,642,423 \$ 3,642,423 \$ 3,642,423 \$ 3,642,423 \$ 3,642,423 \$ 3,642,423 \$ 3,642,442 \$ 3,642,423 \$ 3,642,423 \$ 3,642,423 \$ 3,642,423 \$ 3,642,423 \$ 3,642,4423 \$ 3,642,423 \$ 3,642,4424 \$ 3,642,4424 \$ 3,642,4424 \$ 3,642,4424 \$ 3,642,4424 \$ 3,642,4424 \$ 3,642,4424 \$ 3	b. 30 Yrs Level % of Pay	<del>\$</del>	2,719,197	<del>50</del>	2,719,197	↔	2,883,198	69	2,883,198	↔	2,883,198	∽	,
\$ 2,991,922 \$ 2,991,922 \$ 3,172,371 \$ 3,172,371 \$ 3,172,371 \$ \$ 4,132,141 \$ 4,132,141 \$ 4,381,360 \$ 4,381,360 \$ 4,381,360 \$ \$ 3,416,732 \$ 3,416,732 \$ 3,622,803 \$ 3,622,803 \$ 3,622,803 \$ \$ 3,416,732 \$ 3,416,732 \$ 3,622,803 \$ 3,622,803 \$ 3,622,803 \$ \$ 4,806,365 \$ 4,806,365 \$ 5,096,248 \$ 5,096,24	c. 25 Yrs Level Dollar	∽	3,756,438	<del>69</del>	3,756,438	↔	3,982,997	∽	3,982,997	↔	3,982,997	<del>5/)</del>	:
\$ 4,132,141 \$ 4,132,141 \$ 4,381,360 \$ 4,381,360 \$ 4,381,360 \$ \$ 3,416,732 \$ 3,416,732 \$ 3,422,803 \$ 3,622,803 \$ 3,622,803 \$ 3,622,803 \$ \$ 3,416,732 \$ 3,416,732 \$ 3,622,803 \$ 3,622,803 \$ 3,622,803 \$ \$ 4,806,365 \$ 4,806,365 \$ 4,396,674 \$ 4,396,674 \$ 4,396,674 \$ 4,396,674 \$ 4,396,674 \$ 4,396,674 \$ 4,396,674 \$ 4,396,674 \$ 4,223,190 \$ 4,170,617 \$ 4,049,284 \$ 4,049,284 \$ 4,475,004 \$ 5,333,038 \$ 5,280,465 \$ 5,226,069 \$ 5,226,069 \$ 5,621,789 \$ 5,533,038 \$ 5,882,467 \$ 5,652,318 \$ 5,652,318 \$ 5,652,318 \$ 5,652,318 \$ 5,652,318 \$ 5,652,318 \$ 5,652,318 \$ 5,663,81 \$ 5,685,460 \$ 6,403,887 \$ 6,417,248 \$ 6,417,248 \$ 6,944,23 \$ 5,750,494 \$ 5,697,921 \$ 5,668,704 \$	d. 25 Yrs Level % of Pay	↔	2,991,922	€9	2,991,922	↔	3,172,371	↔	3,172,371	↔	3,172,371	↔	ì
\$ 3,416,732 \$ 3,416,732 \$ 3,622,803 \$ 3,622,803 \$ 3,622,803 \$ \$ 4,806,365 \$ 4,806,365 \$ 5,096,248 \$ 5,096,248 \$ 5,096,248 \$ 5,096,248 \$ 5,096,248 \$ 5,096,248 \$ 5,086,344 \$ 5,086,344 \$ 5,096,248 \$ 5,086,344 \$ 5,086,612 \$ 5,392,332 \$ 8 4,223,190 \$ 4,170,617 \$ 4,966,612 \$ 5,226,069 \$ 5,226,069 \$ 5,333,038 \$ 5,280,465 \$ 5,226,069 \$ 5,226,069 \$ 5,631,789 \$ 8 4,515,006 \$ 4,462,433 \$ 4,358,699 \$ 4,358,699 \$ 4,784,419 \$ 5 5,735,040 \$ 5,682,467 \$ 5,652,318 \$ 5,652,318 \$ 5,652,318 \$ 5,266,381 \$ 5 6,456,460 \$ 6,403,887 \$ 6,417,248 \$ 6,417,248 \$ 6,417,248 \$ 6,944,423 \$ 5,750,494 \$ 5,697,921 \$ 5,668,704 \$ 5,668,704 \$ 5,668,704 \$ 5,608,704 \$ 5,682,704 \$ 5,688,	e. 20 Yrs Level Dollar	⇔	4,132,141	<del>6∕3</del>	4,132,141	↔	4,381,360	<del>69</del>	4,381,360	⇔	4,381,360	∽	;
\$ 4,806,365 \$ 4,806,365 \$ 5,096,248 \$ 5,096,248 \$ 5,096,248 \$ \$ 4,146,584 \$ 4,146,584 \$ 4,396,674 \$ 4,396,674 \$ 4,396,674 \$ \$ 4,396,674 \$ \$ 4,396,674 \$ \$ 5,088,339 \$ 5,035,765 \$ 4,049,284 \$ 4,049,284 \$ 4,475,004 \$ \$ 5,223,190 \$ 4,170,617 \$ 4,049,284 \$ 4,049,284 \$ 4,475,004 \$ \$ 5,333,038 \$ 5,280,465 \$ 5,226,069 \$ 5,226,069 \$ 5,651,789 \$ \$ 4,515,006 \$ 4,462,433 \$ 4,358,699 \$ 4,358,699 \$ 4,358,699 \$ 4,784,419 \$ \$ 5,735,040 \$ 5,682,467 \$ 5,652,318 \$ 5,652,318 \$ 5,652,318 \$ 5,266,381 \$ \$ 6,456,460 \$ 6,403,887 \$ 6,417,248 \$ 6,417,248 \$ 6,417,248 \$ 6,842,968 \$ 5,566,301 \$ \$ 5,750,494 \$ 5,697,921 \$ 5,668,704 \$ 5,668,704 \$ 5,668,704 \$ 5,608,704 \$ 5,688,70	f. 20 Yrs Level % of Pay	<del>\$9</del>	3,416,732	↔	3,416,732	↔	3,622,803	\$	3,622,803	↔	3,622,803	↔	ı
\$ 4,146,584 \$ 4,146,584 \$ 4,396,674 \$ 4,396,674 \$ 4,396,674 \$ 4,296,674 \$ 4,296,674 \$ 4,396,674 \$ 4,396,674 \$ 5,088,339 \$ 5,035,765 \$ 4,966,612 \$ 4,966,612 \$ 5,392,332 \$ 5,422,190 \$ 4,170,617 \$ 4,049,284 \$ 4,049,284 \$ 4,475,004 \$ 5,233,038 \$ 5,280,465 \$ 5,226,069 \$ 5,226,069 \$ 5,651,789 \$ 8 4,515,006 \$ 4,462,433 \$ 4,358,699 \$ 4,358,699 \$ 4,384,419 \$ 5,735,040 \$ 5,682,467 \$ 5,652,318 \$ 5,652,318 \$ 6,078,037 \$ 8 4,969,553 \$ 4,916,979 \$ 6,480,662 \$ 4,840,662 \$ 5,266,381 \$ 5,566,460 \$ 6,403,887 \$ 6,417,248 \$ 6,417,248 \$ 6,417,248 \$ 6,944,23 \$ 5,750,494 \$ 5,697,921 \$ 5,668,704 \$ 5,668,704 \$ 5,668,704 \$ 5,668,704 \$ 5,668,704 \$ 5,688,704 \$ 5	g. 15 Yrs Level Dollar	∽	4,806,365	<del>6</del>	4,806,365	↔	5,096,248	S	5,096,248	<del>&gt;&gt;</del>	5,096,248	<del>5/)</del>	,
\$ 5,088,339 \$ 5,035,765 \$ 4,966,612 \$ 4,966,612 \$ 5,392,332 \$ \$ 4,223,190 \$ 4,170,617 \$ 4,049,284 \$ 4,049,284 \$ 4,475,004 \$ 5,333,038 \$ 5,280,465 \$ 5,226,069 \$ 5,226,069 \$ 5,621,789 \$ 4,515,006 \$ 4,462,433 \$ 4,358,699 \$ 4,358,699 \$ 4,784,419 \$ 5,735,040 \$ 5,682,467 \$ 5,652,318 \$ 5,652,318 \$ 6,078,037 \$ \$ 4,969,553 \$ 4,916,979 \$ 4,840,662 \$ 4,840,662 \$ 5,266,381 \$ \$ 6,456,460 \$ 6,403,887 \$ 6,417,248 \$ 6,417,248 \$ 6,429,68 \$ 5,560,494 \$ 5,697,921 \$ 5,668,704 \$ 5,668,704 \$ 6,094,423 \$	h. 15 Yrs Level % of Pay	<del>\$</del>	4,146,584	↔	4,146,584	↔	4,396,674	<del></del>	4,396,674	<del>5</del>	4,396,674	<del>59</del>	,
\$ 5,088,339 \$ 5,035,765 \$ 4,966,612 \$ 4,966,612 \$ 5,392,332 \$ \$ 4,223,190 \$ 4,170,617 \$ 4,049,284 \$ 4,049,284 \$ 4,75,004 \$ \$ 5,333,038 \$ 5,280,465 \$ 5,226,069 \$ 5,226,069 \$ 5,651,789 \$ \$ 4,515,006 \$ 4,462,433 \$ 4,358,699 \$ 4,358,699 \$ 4,784,419 \$ \$ 5,735,040 \$ 5,682,467 \$ 5,652,318 \$ 5,652,318 \$ 6,078,037 \$ \$ 4,969,553 \$ 4,916,979 \$ 4,840,662 \$ 4,840,662 \$ 5,266,381 \$ \$ 6,456,460 \$ 6,403,887 \$ 6,417,248 \$ 6,417,248 \$ 6,944,23 \$ \$ 5,750,494 \$ 5,697,921 \$ 5,668,704 \$ 5,66	10. Alternate Annual Required Contribution												
\$ 4,223,190 \$ 4,170,617 \$ 4,049,284 \$ 4,049,284 \$ 4,475,004 \$ 5,333,038 \$ 5,280,465 \$ 5,226,069 \$ 5,226,069 \$ 5,527,789 \$ 5,333,038 \$ 5,280,465 \$ 5,226,069 \$ 5,226,069 \$ 5,651,789 \$ \$ 4,515,006 \$ 4,462,433 \$ 4,586,699 \$ 4,586,699 \$ 4,784,419 \$ \$ 5,735,040 \$ 5,682,467 \$ 5,652,318 \$ 5,652,318 \$ 6,078,037 \$ \$ 4,969,553 \$ 4,916,979 \$ 4,840,662 \$ 4,840,662 \$ 5,266,381 \$ \$ 6,456,460 \$ 6,403,887 \$ 6,417,248 \$ 6,417,248 \$ 6,842,968 \$ 5,5750,494 \$ 5,597,921 \$ 5,668,704 \$ 5,668,704 \$ 6,094,423 \$ \$ \$ 1,000,000,000,000,000,000,000,000,000,0	a. 30 Yrs Level Dollar	<del>59</del>	5,088,339	<del>69</del>	5,035,765	69	4,966,612	↔	4,966,612	€9	5,392,332	69	6,192,229
\$ 5,33,038 \$ 5,280,465 \$ 5,226,069 \$ 5,226,069 \$ 5,651,789 \$	b. 30 Yrs Level % of Pay	<del>5/</del> 9	4,223,190	↔	4,170,617	60	4,049,284	8	4,049,284	S	4,475,004	<del>6∕9</del>	6,192,229
\$ 4,515,006 \$ 4,462,433 \$ 4,358,699 \$ 4,358,699 \$ 4,784,419 \$ \$ 5,735,040 \$ 5,682,467 \$ 5,652,318 \$ 5,652,318 \$ 6,078,037 \$ \$ 4,969,553 \$ 4,916,979 \$ 4,840,662 \$ 4,840,662 \$ 5,266,381 \$ \$ 6,456,460 \$ 6,403,887 \$ 6,417,248 \$ 6,417,248 \$ 6,842,968 \$ 5,750,494 \$ 5,697,921 \$ 5,668,704 \$ 5,668,704 \$ 6,094,423 \$	c. 25 Yrs Level Dollar	↔	5,333,038	÷	5,280,465	69	5,226,069	↔	5,226,069	S	5,651,789	€9	6,192,229
\$ 5,735,040 \$ 5,682,467: \$ 5,652,318 \$ 5,652,318 \$ 6,078,037 \$ 4,969,553 \$ 4,916,979 \$ 4,840,662 \$ 4,840,662 \$ 5,266,381 \$ 6,456,460 \$ 6,403,887 \$ 6,417,248 \$ 6,417,248 \$ 6,842,968 \$ 5,750,494 \$ 5,697,921 \$ 5,668,704 \$ 5,668,704 \$ 6,094,423 \$	d, 25 Yrs Level % of Pay	∽	4,515,006	↔	4,462,433	6	4,358,699	<del>60</del>	4,358,699	∽	4,784,419	€	6,192,229
\$ 4,969,553 \$ 4,916,979 \$ 4,840,662 \$ 4,840,662 \$ 5,266,381 \$ \$ 6,456,460 \$ 6,403,887 \$ 6,417,248 \$ 6,417,248 \$ 6,842,968 \$ \$ 5,750,494 \$ 5,697,921 \$ 5,668,704 \$ 5,668,704 \$ 6,094,423 \$	e. 20 Yrs Level Dollar	⇔	5,735,040	∽	5,682,467	↔	5,652,318	↔	5,652,318	69	6,078,037	64	6,192,229
\$ 6,456,460 \$ 6,403,887 \$ 6,417,248 \$ 6,417,248 \$ 6,842,968 \$ 5,750,494 \$ 5,697,921 \$ 5,668,704 \$ 5,668,704 \$ 6,094,423 \$	f. 20 Yrs Level % of Pay	<del>69</del>	4,969,553	∽	4,916,979	69	4,840,662	S	4,840,662	€\$	5,266,381	64	6,192,229
\$ 5,750,494 \$ 5,697,921 \$ 5,668,704 \$ 5,668,704 \$ 6,094,423 \$	g. 15 Yrs Level Dollar	₩	6,456,460	<del>5/3</del>	6,403,887	↔	6,417,248	$\Leftrightarrow$	6,417,248	69	6,842,968	↔	6,192,229
	h. 15 Yrs Level % of Pay	<del>69</del>	5,750,494	↔	5,697,921	↔	5,668,704	↔	5,668,704	↔	6,094,423	<del>59</del>	6,192,229

## APPENDIX - IV

## PROJECTED BENEFIT PAYMENTS

\$ 7,474,048         \$ 177,875,100         2074         \$ 845,272         \$ 323,872,945           \$ 7,431,296         \$ 185,306,396         2075         \$ 703,204         \$ 324,576,149           \$ 7,431,296         \$ 127,02,016         2076         \$ 578,126         \$ 324,576,149           \$ 7,344,624         \$ 200,046,640         2077         \$ 469,905         \$ 325,164,275           \$ 7,344,624         \$ 200,046,640         2077         \$ 469,905         \$ 325,01,520           \$ 7,346,178         \$ 214,291,434         2080         \$ 295,802         \$ 326,01,723           \$ 6,837,299         \$ 221,228,733         2080         \$ 235,600         \$ 326,501,620           \$ 6,837,299         \$ 224,405,883         2082         \$ 2082         \$ 326,007,203           \$ 6,837,299         \$ 224,405,883         2082         \$ 141,049         \$ 326,007,203           \$ 6,837,299         \$ 224,405,883         2082         \$ 141,049         \$ 326,007,003           \$ 6,837,299         \$ 244,05,883         2082         \$ 141,049         \$ 326,007,003           \$ 6,108,70         \$ 286,05,594         \$ 2080         \$ 236,007,003         \$ 327,121,003           \$ 5,407,11,13         \$ 222,009,987         \$ 240,201         \$ 286,008         \$	Amount Accumulated	Accumulat	Accumulated	cumulated	ਹ।		Year	•	Amount	Accumulated	Year		Amount	Accumulated
7,431,296         \$ 185,306,396         2075         \$ 703,204         \$ 7,395,620         \$ 192,702,016         \$ 578,126         \$ 7,344,624         \$ 500,046,640         2077         \$ 469,905         \$ 7,344,624         \$ 200,046,640         2077         \$ 469,905         \$ 7,236,178         \$ 207,282,818         \$ 207,282,818         \$ 207,282,818         \$ 207,282,818         \$ 207,282,818         \$ 207,282,818         \$ 207,282,818         \$ 207,282,818         \$ 207,282,813         \$ 2080         \$ 299,892         \$ 2080         \$ 235,600 <td>1,938,267 \$ 1,938,2</td> <td>\$ 1,938,267</td> <td>1,938,267</td> <td>67</td> <td></td> <td>2041</td> <td></td> <td>69</td> <td>7,474,048</td> <td>\$ 177,875,100</td> <td>2074</td> <td>↔</td> <td>845,272</td> <td>\$ 323,872,945</td>	1,938,267 \$ 1,938,2	\$ 1,938,267	1,938,267	67		2041		69	7,474,048	\$ 177,875,100	2074	↔	845,272	\$ 323,872,945
7,395,620       \$ 192,702,016       2076       \$ 578,126         7,344,624       \$ 200,046,640       2077       \$ 469,905         7,234,178       \$ 207,282,818       2079       \$ 299,892         7,108,616       \$ 214,391,434       2079       \$ 299,892         6,837,299       \$ 221,228,733       2080       \$ 295,600         6,660,516       \$ 227,889,249       2081       \$ 183,160         6,660,516       \$ 227,889,249       2081       \$ 183,160         6,660,516       \$ 246,919,676       2082       \$ 141,049         6,168,520       \$ 246,919,676       2083       \$ 107,645         6,168,500       \$ 246,919,676       2083       \$ 14,836         6,168,500       \$ 246,919,676       2083       \$ 107,645         8,240,11       \$ 252,909,987       2083       \$ 107,645         8,168,500       \$ 246,201,234       2083       \$ 23,478         5,342,411       \$ 269,604,758       \$ 2080       \$ 23,478         5,344,411       \$ 269,604,758       \$ 244,203       \$ 2084         5,108,475       \$ 279,581,346       \$ 2080       \$ 23,478         5,342,411       \$ 269,604,758       \$ 284,200,822       \$ 2092         6,	2,139,934 \$	\$ 4,078,201	4,078,201	01		2042		↔	7,431,296		2075	₩,	703,204	\$ 324,576,149
7,344,624         \$ 200,046,640         2077         \$ 469,905         \$ 7,344,624         \$ 200,046,640         2078         \$ 377,548         \$ 7,108,616         \$ 214,391,434         2079         \$ 299,892         \$ 5,108,616         \$ 214,391,434         2079         \$ 299,892         \$ 235,600         \$ 6,837,299         \$ 221,228,733         2080         \$ 235,600	2,288,241 \$ 6,366,442	\$ 6,366,442	6,366,442	42		2043		<del>5</del> 0	7,395,620		2076	∽	578,126	
7,236,178       \$ 207,282,818       2078       \$ 377,548       \$ 7,108,616       \$ 214,391,434       2079       \$ 299,892       \$ 7,108,616       \$ 214,391,434       2079       \$ 299,892       \$ 6,837,299       \$ 21,228,733       2080       \$ 235,600       \$ 6,60,516       \$ 227,889,249       2081       \$ 235,600	2,502,851 \$ 8,869,293	\$ 8,869,293	8,869,293			2044		₩	7,344,624		2077	υ¢	469,905	
7,108,616       \$ 214,391,434       2079       \$ 299,892       \$ 6,837,299       \$ 221,228,733       6,889       \$ 6,837,299       \$ 221,228,733       6,660,516       \$ 227,889,249       2081       \$ 183,160       \$ 6,516,634       \$ 234,405,883       2082       \$ 141,049       \$ 141,049       \$ 6,345,243       \$ 240,751,126       \$ 2083       \$ 107,645       \$ 107,624       \$ 107	2,684,776 \$ 11,554,069	\$ 11,554,069	\$ 11,554,069			2045		<del>59</del>	7,236,178		2078	69	377,548	
6,837,299       \$ 221,228,733       2080       \$ 235,600       \$ 6,606,516       \$ 227,889,249       \$ 2081       \$ 183,160       \$ 6,606,516       \$ 227,889,249       \$ 2082       \$ 141,049       \$ 141,049       \$ 6,16,634       \$ 234,405,883       \$ 2082       \$ 141,049       \$ 140,041       \$ 140,041       \$ 140,041       \$ 140,041       \$ 140,041       \$ 140,041       \$ 140,041       \$ 140,041       \$ 140,041       \$ 140,041       \$ 140,041       \$ 140,04	\$ 14,422,667	\$ 14,422,667	\$ 14,422,667			2046		↔	7,108,616		2079	6/9	299,892	
6,660,516       \$ 227,889,249       2081       \$ 183,160       \$ 6,516,634       \$ 234,405,883       2082       \$ 141,049       \$ 6,345,243       \$ 240,751,126       2083       \$ 107,645       \$ 6,168,550       \$ 246,919,676       2084       \$ 81,280       \$ 107,645       \$ 6,168,550       \$ 246,919,676       2084       \$ 81,280       \$ 107,645       \$ 107,648       \$ 107,645       \$ 107,645       \$ 107,645       \$ 107,645       \$ 107,645       \$ 107,645       \$ 107,645       \$ 107,648	3,053,555 \$ 17,476,222	\$ 17,476,222	17,476,222			2047		↔	6,837,299		2080	€⁄)	235,600	
6,516,634       \$ 234,405,883       2082       \$ 141,049       \$ 6,345,243       \$ 240,751,126       2083       \$ 107,645       \$ 6,168,550       \$ 246,919,676       2084       \$ 107,645       \$ 107,645       \$ 6,168,550       \$ 246,919,676       2084       \$ 107,645 <td>3,193,761 \$ 20,669,983</td> <td>\$ 20,669,983</td> <td>20,669,983</td> <td></td> <td></td> <td>2048</td> <td></td> <td><del>∽</del></td> <td>6,660,516</td> <td></td> <td>2081</td> <td>69</td> <td>183,160</td> <td></td>	3,193,761 \$ 20,669,983	\$ 20,669,983	20,669,983			2048		<del>∽</del>	6,660,516		2081	69	183,160	
6,345,243       \$ 240,751,126       2083       \$ 107,645       \$ 81,280         6,168,550       \$ 246,919,676       2084       \$ 81,280       \$ 5,990,311         5,990,311       \$ 252,909,987       2086       \$ 44,834       \$ 5,785,607       \$ 23,478       \$ 23,478         5,785,607       \$ 258,695,594       2086       \$ 23,478 <td< td=""><td>\$ 24,066,421</td><td>\$ 24,066,421</td><td>24,066,421</td><td></td><td></td><td>2049</td><td></td><td>↔</td><td>6,516,634</td><td></td><td>2082</td><td>69</td><td>141,049</td><td></td></td<>	\$ 24,066,421	\$ 24,066,421	24,066,421			2049		↔	6,516,634		2082	69	141,049	
6,168,550       \$ 246,919,676       2084       \$ 81,280       \$ 5,990,311         5,990,311       \$ 252,909,987       2086       \$ 60,718       \$ 5,785,607       \$ 258,695,594       2086       \$ 44,834       \$ 5,566,773       \$ 23,673       \$ 23,478       \$ 23,478       \$ 23,478       \$ 23,478       \$ 23,478       \$ 23,478       \$ 23,478       \$ 23,478       \$ 23,478       \$ 23,478       \$ 23,478       \$ 23,673       \$ 23,673       \$ 23,673       \$ 23,673       \$ 23,673       \$ 23,673       \$ 23,673       \$ 23,673       \$ 23,673       \$ 23,673       \$ 23,673       \$ 23,674       \$ 23,673       \$ 23,673       \$ 23,673       \$ 23,674       \$ 23,674       \$ 23,674       \$ 23,674       \$ 23,674       \$ 23,674       \$ 23,674       \$ 23,674       \$ 23,674       \$ 23,675	3,529,396 \$ 27,595,817	\$ 27,595,817	27,595,817			2050		÷	6,345,243		2083	S)	107,645	
5,990,311       \$ 252,909,987       2086       \$       60,718       \$         5,785,607       \$ 258,695,594       2086       \$       44,834       \$         5,566,753       \$ 264,262,347       2088       \$       23,478       \$         5,434,411       \$ 269,604,758       2088       \$       23,478       \$         5,108,475       \$ 274,713,233       2089       \$       11,583       \$         4,868,113       \$ 279,581,346       2090       \$       11,583       \$         4,868,113       \$ 279,581,346       2091       \$       7,942       \$         4,619,476       \$ 284,200,822       2091       \$       7,942       \$         4,106,246       \$ 292,672,138       2092       \$       2,365       \$         4,106,246       \$ 292,672,138       2093       \$       3,545       \$         3,843,892       \$ 296,516,030       2094       \$       2,305       \$         3,792,238       \$ 300,095,268       2095       \$       2,095       \$         3,794,33       \$ 306,441,35       2090       \$       2,086       \$         2,784,445       \$ 309,244,135       2090       \$	\$ 31,310,920	\$ 31,310,920	31,310,920			2051		↔	6,168,550		2084	<del>5/)</del>	81,280	
5,785,607       \$ 258,695,594       2086       \$ 44,834       \$ 5,566,753       \$ 264,262,347       \$ 2087       \$ 32,673       \$ 5,342,411       \$ 269,604,758       \$ 23,478       \$ 23,444       \$ 23,444       \$ 23,444       \$ 23,444       \$ 23,444       \$ 23,444       \$ 23,444       \$ 23,444       \$ 23,444       \$ 23,444       \$ 23,444       \$ 23,444       \$ 23,444       \$ 23,444       \$ 23,444       \$ 23,444       \$ 23,44	3,848,212 \$ 35,159,132	\$ 35,159,132	35,159,132			2052		∻	5,990,311		2085	<del>5/)</del>	60,718	\$ 327,111,072
5,566,753       \$ 264,262,347       2087       \$ 32,673       \$ 5,342,411         5,342,411       \$ 269,604,758       2088       \$ 23,478       \$ 5,108,475       \$ 274,713,233       2089       \$ 16,624       \$ 11,583       \$ 23,478       \$ 20,084       \$ 23,478       \$ 20,091       \$ 23,478       \$ 23,478       \$ 23,478       \$ 23,418       \$ 23,478       \$ 23,418       \$ 23,478       \$ 23,418       \$ 23,418       \$ 23,478       \$ 23,418       \$ 23,478       \$ 23,478       \$ 23,478       \$ 23,478       \$ 23,478       \$ 23,478       \$ 23,478       \$ 23,478       \$ 23,478       \$ 23,478       \$ 23,478       \$ 23,478       \$ 23,478       \$ 23,478       \$ 23,478       \$ 23,478       \$ 23,579       \$ 23,545       \$ 33,545       \$ 33,545       \$ 33,579       \$ 23,505       \$ 33,579       \$ 23,505	\$ 39,221,042	\$ 39,221,042	39,221,042			2053		∽	5,785,607		2086	64)	44,834	\$ 327,155,906
5,342,411       \$ 269,604,758       2088       \$ 23,478       \$ 5,108,475       \$ 274,713,233       2089       \$ 16,624       \$ 16,619       \$ 16,624       \$ 2,628       \$ 2,928       \$ 2,928       \$ 2,928       \$ 2,928       \$ 2,928       \$ 2,928       \$ 2,928       \$ 2,905       \$ 3,923       \$ 3,923       \$ 3,923       \$ 3,923       \$ 3,923       \$ 3,923       \$ 3,923       \$ 3,923       \$ 3,923       \$ 3,923       \$ 3,923       \$ 3,923       \$ 3,923       \$ 3,923       \$ 3,923       \$ 3,923       \$ 3,923       \$ 3,923	4,308,945 \$ 43,529,987	\$ 43,529,987	\$ 43,529,987			2054		<del>6</del>	5,566,753		2087	6/9	32,673	\$ 327,188,579
5,108,475       \$ 274,713,233       2089       \$ 16,624       \$ 4,868,113       \$ 279,581,346       2090       \$ 11,583       \$ 2,868,113       \$ 279,581,346       2091       \$ 7,942       \$ 8       \$ 11,583       \$ 8       \$ 1,1583       \$ 1,16,624       \$ 1,16,583       \$ 1,16,624       \$ 1,16,624       \$ 1,16,624       \$ 1,16,624       \$ 1,462       \$ 2,305       \$ 2,305       \$ 3,545       \$ 3,	4,493,660 \$ 48,023,647	\$ 48,023,647	\$ 48,023,647			2055		↔	5,342,411		2088	69	23,478	\$ 327,212,057
4,868,113       \$ 279,\$81,346       2090       \$ 11,583       \$ 8         4,619,476       \$ 284,200,822       2091       \$ 7,942       \$ 8         4,106,246       \$ 292,672,138       2093       \$ 3,545       \$ 3,556       \$ 3,556       \$ 3,556       \$ 3,556	4,761,190 \$ 52,784,837	\$ 52,784,837	52,784,837			2056		<del>∽</del>	5,108,475		2089	<b>9</b>	16,624	
4,619,476       \$ 284,200,822       2091       \$ 7,942       \$ 8         4,365,070       \$ 288,565,892       2092       \$ 5,356       \$ 8         4,106,246       \$ 292,672,138       2093       \$ 3,545       \$ 8         3,843,892       \$ 296,516,030       2094       \$ 2,305       \$ 8         3,579,238       \$ 300,095,268       2095       \$ 1,468       \$ 8         3,313,592       \$ 303,408,860       2096       \$ 923       \$ 577       \$ 5,386         3,048,830       \$ 306,457,690       \$ 2097       \$ 577       \$ 5         2,786,445       \$ 309,244,135       2098       \$ 356       \$ 5         2,528,762       \$ 311,772,897       2099       \$ 356       \$ 5         2,528,762       \$ 311,772,897       2099       \$ 356       \$ 5         2,528,763       \$ 314,050,533       2101       \$ 76       \$ 1,801,929       \$ 317,887,102       2102       \$ 40       \$ 1,581,078       \$ 320,841,796       2104       \$ 5       \$	\$ 57,749,420	\$ 57,749,420	57,749,420			2057		↔	4,868,113		2090	6/9	11,583	
4,365,070       \$ 288,565,892       2092       \$ 5,356       \$         4,106,246       \$ 292,672,138       2093       \$ 3,545       \$         3,843,892       \$ 296,516,030       2094       \$ 2,305       \$         3,579,238       \$ 300,095,268       2095       \$ 1,468       \$         3,313,592       \$ 303,408,860       2096       \$ 923       \$         3,048,830       \$ 306,457,690       2097       \$ 577       \$         2,786,445       \$ 309,244,135       2098       \$ 356       \$         2,786,445       \$ 309,244,135       2099       \$ 218       \$         2,528,762       \$ 311,772,897       2099       \$ 218       \$         2,528,762       \$ 314,050,533       2100       \$ 132       \$         2,034,640       \$ 316,085,173       2102       \$ 40       \$         1,801,929       \$ 317,887,102       2102       \$ 40       \$         1,581,078       \$ 320,841,796       2104       \$ 2       \$         1,181,206       \$ 322,023,002       2106       \$ -       \$ -         1,004,671       \$ 323,027,673       2106       \$ -       \$ -	5,174,030 \$ 62,923,450	\$ 62,923,450	62,923,450			2058		↔	4,619,476		2091	64)	7,942	
4,106,246       \$ 292,672,138       2093       \$ 3,545       \$         3,843,892       \$ 296,516,030       2094       \$ 2,305       \$         3,579,238       \$ 300,095,268       2095       \$ 1,468       \$         3,313,592       \$ 303,408,860       2096       \$ 923       \$         3,048,830       \$ 306,457,690       2097       \$ 577       \$         2,786,445       \$ 309,244,135       2098       \$ 356       \$         2,528,762       \$ 311,772,897       2099       \$ 218       \$         2,528,762       \$ 314,050,533       2100       \$ 132       \$         2,528,763       \$ 314,050,533       2101       \$ 76       \$         2,534,640       \$ 316,085,173       2102       \$ 40       \$         1,801,929       \$ 317,887,102       2102       \$ 40       \$         1,581,078       \$ 319,468,180       2103       \$ 5       \$         1,373,616       \$ 322,023,002       2105       \$ 7       \$         1,181,206       \$ 322,023,002       2106       \$ 7       \$         1,004,671       \$ 323,027,673       2106       \$ 7       \$	5,327,437 \$ 68,250,887	\$ 68,250,887	\$ 68,250,887			2059		<del>57</del>	4,365,070		2092	₩	5,356	
3,843,892       \$ 296,516,030       2094       \$ 2,305       \$         3,579,238       \$ 300,095,268       2095       \$ 1,468       \$         3,313,592       \$ 303,408,860       2096       \$ 923       \$         3,048,830       \$ 306,457,690       2097       \$ 577       \$         2,786,445       \$ 309,244,135       2098       \$ 356       \$         2,528,762       \$ 311,772,897       2099       \$ 218       \$         2,528,763       \$ 314,050,533       2100       \$ 132       \$         2,034,640       \$ 316,085,173       2102       \$ 40       \$         1,801,929       \$ 317,887,102       2102       \$ 40       \$         1,881,078       \$ 319,468,180       2103       \$ 9       \$         1,581,078       \$ 320,841,796       2104       \$ 2       \$         1,181,206       \$ 322,023,002       2105       \$ -       \$         1,004,671       \$ 323,027,673       2106       \$ -       \$	5,512,889 \$ 73,763,776	\$ 73,763,776	\$ 73,763,776			2060		<del>59</del>	4,106,246		2093	↔	3,545	
3,579,238       \$ 300,095,268       2095       \$ 1,468       \$ 8         3,313,592       \$ 303,408,860       2096       \$ 923       \$ 577       \$ 2,786,445       \$ 306,457,690       2097       \$ 577       \$ 577       \$ 2,786,445       \$ 309,244,135       2098       \$ 356       \$ 577       \$ 2,528,762       \$ 311,772,897       2099       \$ 218       \$ 356       \$ 218       \$ 22,277,636       \$ 314,050,533       2100       \$ 132       \$ 5       \$ 2,034,640       \$ 316,085,173       2101       \$ 76       \$ 1,801,929       \$ 317,887,102       2102       \$ 40       \$ 1,801,929       \$ 317,887,102       2103       \$ 9       \$ 1,373,616       \$ 320,841,796       2104       \$ 2       \$ 1,373,616       \$ 322,023,002       2104       \$ 1       \$ 1,181,206       \$ 323,027,673       \$ 2106       \$ 3	5,781,280 \$ 79,545,056	\$ 79,545,056	79,545,056			2061		<del>69</del>	3,843,892		2094	↔	2,305	
3,313,592       \$ 303,408,860       2096       \$ 923       \$ 3,048,830         3,048,830       \$ 306,457,690       2097       \$ 577       \$ 2,786,445       \$ 309,244,135       2098       \$ 356       \$ 5         2,528,762       \$ 311,772,897       2099       \$ 218       \$ 5         2,277,636       \$ 314,050,533       2100       \$ 132       \$ 5         2,034,640       \$ 316,085,173       2101       \$ 76       \$ 1,801,929       \$ 317,887,102       2102       \$ 40       \$ 1,581,078       \$ 319,468,180       2103       \$ 9       \$ 1,373,616       \$ 320,841,796       2104       \$ 2       \$ 1,181,206       \$ 322,023,002       2105       \$ 1       \$ 1         1,004,671       \$ 323,027,673       2106       \$ 3       . \$ \$       . \$ \$	6,055,023 \$ 85,600,079	\$ 85,600,079	85,600,079			2062		↔	3,579,238		2095	₩	1,468	
3,048,830       \$ 306,457,690       2097       \$ 577       \$         2,786,445       \$ 309,244,135       2098       \$       356       \$         2,528,762       \$ 311,772,897       2099       \$       218       \$         2,277,636       \$ 314,050,533       2100       \$       132       \$         2,034,640       \$ 316,085,173       2101       \$       76       \$         1,801,929       \$ 317,887,102       2102       \$       40       \$         1,581,078       \$ 319,468,180       2103       \$       9       \$         1,373,616       \$ 320,841,796       2104       \$       2       \$         1,181,206       \$ 322,023,002       2105       \$       1       \$         1,004,671       \$ 323,027,673       2106       \$       .       \$	\$ 91,889,717	\$ 91,889,717	91,889,717			2063		↔	3,313,592		2096	<del>6∕3</del>	923	
2,786,445       \$ 309,244,135       2098       \$ 356       \$         2,528,762       \$ 311,772,897       2099       \$ 218       \$         2,277,636       \$ 314,050,533       2100       \$ 132       \$         2,034,640       \$ 316,085,173       2101       \$ 76       \$         1,801,929       \$ 317,887,102       2102       \$ 40       \$         1,581,078       \$ 319,468,180       2103       \$ 9       \$         1,373,616       \$ 320,841,796       2104       \$ 2       \$         1,181,206       \$ 322,023,002       2105       \$ 1       \$         1,004,671       \$ 323,027,673       2106       \$ .       \$	6,486,411 \$ 98,376,128	\$ 98,376,128	98,376,128			2064		<del>69</del>	3,048,830		2097	⋺	577	
2,528,762       \$ 311,772,897       2099       \$ 218       \$ 2,277,636       \$ 314,050,533       2100       \$ 132       \$ 2,277,636       \$ 314,050,533       2101       \$ 132       \$ 13	6,645,312 \$ 105,021,440	\$ 105,021,440	105,021,440			2065		€⁄)	2,786,445		2098	<del>59</del>	356	
2,277,636       \$ 314,050,533       2100       \$ 132       \$ 2,034,640       \$ 316,085,173       2101       \$ 76       \$ 1,801,929       \$ 317,887,102       2102       \$ 40       \$ 1,581,078       \$ 319,468,180       2103       \$ 9       \$ 1,373,616       \$ 320,841,796       2104       \$ 2       \$ 1,181,206       \$ 322,023,002       2105       \$ 1       \$ 1       \$ 1       \$ 1,004,671       \$ 323,027,673       \$ 2106       \$ 5       <	6,776,543 \$ 111,797,983	\$ 111,797,983	111,797,983			2066		<del>69</del>	2,528,762		2099	↔	218	
\$ 316,085,173       2101       \$       76       \$         \$ 317,887,102       2102       \$       40       \$         \$ 319,468,180       2103       \$       9       \$         \$ 320,841,796       2104       \$       2       \$         \$ 322,023,002       2105       \$       1       \$         \$ 323,027,673       2106       \$       .       \$	6,949,727 \$ 118,747,710	\$ 118,747,710	118,747,710			2067		<del>(</del> A)	2,277,636		2100	↔	132	
\$ 317,887,102       2102       \$ 40       \$         \$ 319,468,180       2103       \$ 9       \$         \$ 320,841,796       2104       \$ 2       \$         \$ 322,023,002       2105       \$ 1       \$         \$ 323,027,673       2106       \$ .       \$	7,084,675 \$ 125,832,385	\$ 125,832,385	125,832,385			2068		<del>59</del>	2,034,640		2101	↔	76	
\$ 319,468,180	7,208,656 \$ 133,041,041	\$ 133,041,041	133,041,041			2069		69	1,801,929	\$ 317,887,102	2102	↔	40	
\$ 322,023,002 2104 \$ 2 \$ \$ \$ 322,023,002 2106 \$ . \$ \$	7,354,306 \$	\$ 140,395,347	140,395,347			2070		643	1,581,078	\$ 319,468,180	2103	<del>59</del>	6	
\$ 322,023,002 2105 \$ 1 \$ \$ 323,027,673 2106 \$ . \$	<del>69</del>	\$ 147,821,641	147,821,641			2071		₩	1,373,616	\$ 320,841,796	2104	69	C1	
\$ 323,027,673 2106 \$ - \$	7,537,544 \$ 155,359,185	\$ 155,359,185	155,359,185			2072		↔	1,181,206	\$ 322,023,002	2105	<del>69</del>		
	<del>69</del>	\$ 162,900,222	162,900,222			2073		€4)	1,004,671	\$ 323,027,673	2106	6/9	1	\$ 327,263,214
	7,500,830 \$	↔		170,401,052	.2									

### APPENDIX – V GLOSSARY

**Actuarial Accrued Liability.** The portion of the present value of benefits which is not provided for by future Normal Costs.

Actuarial Present Value of Total Projected Benefits. The present value, as of the valuation date, of future benefit payments expected to be paid to employees, retirees, and covered dependents.

Annual OPEB Cost. The accrual basis measure of the periodic cost of an employer's participation in a defined benefit OPEB Plan.

Annual Required Contributions of the Employer (ARC). The employer's periodic required contributions to a defined benefit OPEB plan, calculated in accordance with the parameters defined in GAS 45.

Investment Return Assumption (Discount Rate). The rate used to adjust a series of future benefit payments to reflect the time value of money.

Healthcare Cost Trend Rate. The rate of change in per capita health claims costs over time as a result of factors such as medical inflation, utilization of healthcare services and technological developments.

**Net OPEB Obligation.** The cumulative difference since the effective date of GAS 45 between the annual OPEB cost and the employer's contributions to the plan.

**Normal Cost.** The portion of the Actuarial Present Value of plan benefits which is allocated to a valuation year by the Actuarial Cost Method.

**OPEB.** Postemployment benefits other than pension benefits.

Pay-As-You-Go. The amount of the benefits paid out to plan participants during the year.

Per Capita Claims Cost. The current average annual cost of providing postretirement health care benefits to one person.